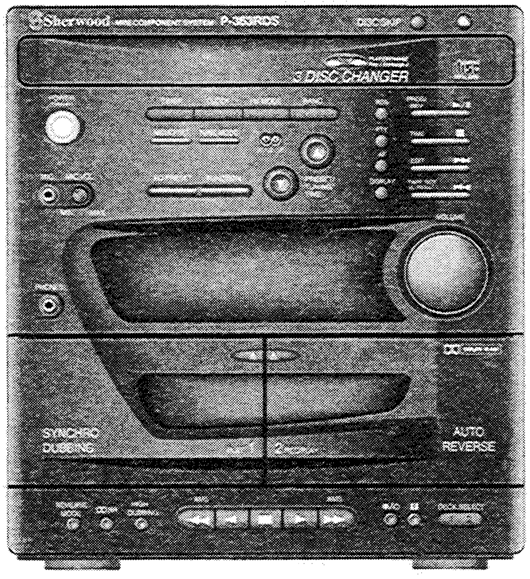
SERVICE MANUAL

P-363R/P-363RDS

MINI COMPONENT SYSTEM


Sherwood
P-363RDS
3 DISC CHANGER
SYNCHRO DUBBING
AUTO REVERSE

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Sherwood®

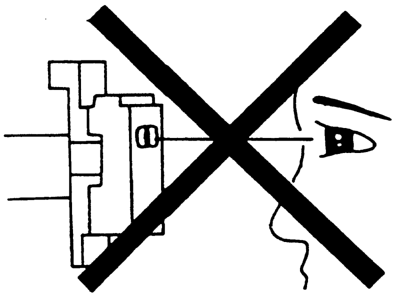
LASER BEAM SAFETY PRECAUTIONS

CLASS 1 LASER PRODUCT

CLASS 1
LASER PRODUCT

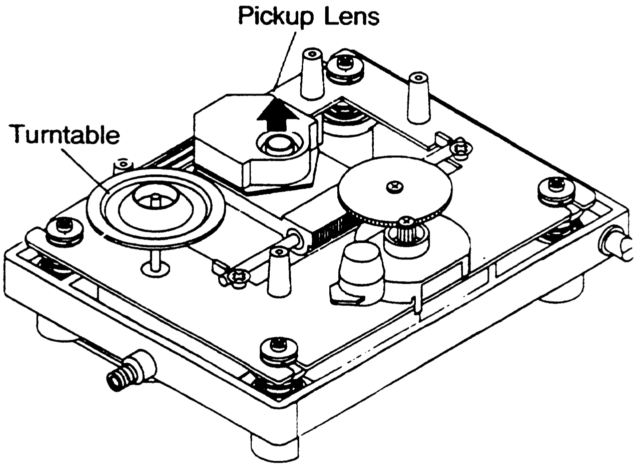
CAUTION
Invisible laser radiation when the unit is open. Do not stare the beam

CAUTION: USE OF ANY CONTROLS, ADJUSTMENT, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

This compact disc player uses a pickup that emits a laser beam. The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 1 foot away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.



CAUTION:
Using controls and adjustment, or doing procedures other than those specified herein, may result in hazardous radiation exposure.

SAFETY PRECAUTIONS

CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Caution: To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

Attention: Pour prévenir les chocs électriques ne pas utiliser cetre fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames prévent étre insérées à fond sans en laisser aucune partie à découvert.

HANDLING LASER PICKUP

The laser diode in the optical system of this player can be damaged by electrostatic discharge from your clothes or your body. Proper electrostatic grounding for service personal is required during servicing.

BEFORE REPAIRING THE COMPACT DISC PLAYER

Preparation

- Human Body Grounding:
  Many of the components used in this compact disc player, including the laser pickup, are sensitive to electrostatic discharge. Service personal should be grounded with an electrostatic armband (1 Mohm).
- Caution:
  Static charge on clothing does not escape through a body grounding wrist band.
  Be careful not to contact the pickup or electrical components with your clothing.
- Workbench and Tool Grounding:
  A properly-grounded electroconductive plate (1 Mohm) or metal sheet should be fitted to the workbench surface. Tools and instruments (such as soldering irons and scopes) should be grounded to prevent AC leakage.

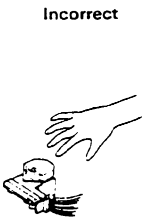


Figure 1

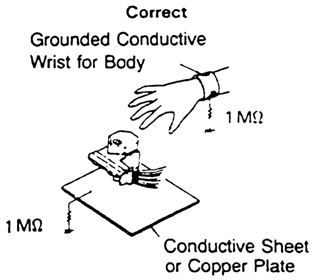

Correct
Grounded Conductive Wrist for Body
1 MΩ
1 MΩ
Conductive Sheet or Copper Plate

Figure 2

Note: Laser diodes are so susceptible to damage from static electricity that, even if a static discharge does not ruin a diode, it can shorten its life or cause it to work improperly.

SPECIFICATIONS

☞ AMPLIFIER SECTION

Description		Unit	Nominal	Limit	Condition
RMS Output Power <Stereo Mode>		W	40	35	6 Ω Load, THD≤0.8%, 1 kHz
Total Harmonic Distortion		%	0.2	0.4	1 kHz, 30 W Output, Stereo Mode
Inter Modulation Distortion		%	0.2	0.4	30 W Output, Stereo Mode
Input Sensitivity	VIDEO	mV	250	±30	30 W Output, Stereo Mode
	MIC	mV	2.5	±0.5	
Signal to Noise Ratio	VIDEO	dB	75	70	IHF UNWTD, 30 W Output
	MIC	dB	42	38	Input 4.7 KΩ Shorted
Frequency Response (at -3 dB Down)		Hz	30 ~ 75000	35 ~ 70000	VIDEO Input, 6 Ω Load 1 W Output
Channel Separation	1 kHz	dB	50	45	Vol. Max. 30 W = 0 dB, 1 W Output,
Channel Balance		dB	±1	±2	VIDEO Input, Input 4.7 kΩ Shorted
Minimum Noise		mV	0.7	1	Vol. Min., Speaker Output

☞ EQ SECTION

- Ref. EQ FLAT

EQ	POPS	ROCK	CLASSIC	Unit	Nominal	Limit	Condition
100 Hz	0	3.75	2	dB	±1	±2	1 W Output
1 kHz	3.75	0	0	dB	±1	±2	1 W Output
10 kHz	2	2	2	dB	±1	±2	1 W Output

☞ DECK SECTION

- DOLBY Level: 200 nWB/m, 400 Hz (A-BEX, TCC-130).
- EQ FLAT
- REC/PB Level: 0 dB=200 nWB, 400 Hz.

Description			Unit	Nominal	Limit	Test Tape
Speed at Normal			Hz	3000	±30	A-BEX, TCC-112
Wow and Flutter WRMS (JIS) Aerage of 3 Times Check at BEG' MID/END of Tape.			%	0.13	0.12	A-BEX, TCC-112
DOLBY Test Point			mV	245	±25	A-BEX, TCC-130
REC/PB Level Calibration			dB	±0.7	±1	TDK, AC-224
Playback Frequency		250 Hz	dB		Within 3	120 us: A-BEX, TCC-162C
		10 kHz	dB		Within 3	70 us: A-BEX, TCC-262C
		12.5 kHz	dB		Within 4	
REC/PB Frequency Response						
	DOLBY NR OFF	250 Hz	dB		Within 3	NOR: TDK, AC-224
		10 kHz	dB		Within 3	
		12.5 kHz	dB		Within 5	
	DOLBY NR ON	250 Hz	dB		Within 3	
		10 kHz	dB		Within 3	
		12.5 kHz	dB		Within 5	
3rd Harmonic Distortion (0 dB)			%	2	2.5	NOR: TDK, AC-224
Total Harmonic Distortion (0 dB)			%	3	3.5	NOR: TDK, AC-224
Channel Separation (B.P.F at 1 kHz)			dB	40	35	NOR: TDK, AC-224
Signal to Noise Ratio (K3=3%)						
	UNWTD	DOLBY OFF	dB	43	41	NOR: TDK, AC-224
		DOLBY B	dB	44	42	DOLBY B NR Effect: 8.5 dB
	WTD	DOLBY OFF	dB	45	43	
		DOLBY B	dB	54	52	
Erase Attenuation (B.P.F at 1 kHz, +10 dB Input)				65	60	NOR: TDK, AC-224
Output Voltage (at Volume Level 19)			V	2	±0.4	A-BEK, TCC130

☞ CD SECTION

- Test Disc: SONY YEDS7 or ABEX TCD784, TCD725
  at DOLBY Tape (TCC-130), Speaker Output 2 V (Volume Level 19). · EQ FLAT

Description			Unit	Nominal	Limit	Frequency
Signal to Noise Ratio (WTD)			dB	68	63	1 kHz
Total Harmonic Distortion			%	0.25	0.3	1 kHz
Frequency response (1 kHz=0 dB)			dB	±0,8	±1,2	100 Hz
			dB	±0,8	±1,2	10 kHz
			dB	±1,2	±1,5	20 kHz
De-emphasis			dB	-4.5	±0.6	5 kHz
			dB	-10	±1.5	16 kHz
Channel Separation			dB	50	45	1 kHz
			dB	40	35	10 kHz
Output Voltage			V	2	±0.4	1 kHz, 10 dB
Disc Defects	PH/444A	Black Dot	um	600	500	
	PH/444A	Interrupt	um	700	600	
	PH/444A	Finger Print	um	ALL	ALL	

ENVIRONMENTAL

Test to specification

Temperature between 59°F (15℃) and 95°F (35℃) and relative humidity between 45% and 75%, with power supply voltage of 10% the normal supply voltage.

Test disc: SONY YEDS-7 or ABEX TCD784, TCD725.

Operation

Unit must work properly and correctly at the temparature range from 32°F (0℃) to 113°F (45℃) and the relative humidity from 40% to 80%, and with the supply voltage.

Storage

Temperature test: 48 hours each at -40°F (-40℃) and 149°F (65℃), Humidity test: 40℃ 95% relative humidity.

☞ AM SECTION

AM Performance test Standard

- RF Signal: 999 kHz, 5 mV/m
- Modulation: 400 Hz, 30% at DOLBY Tape (TCC-130) Speaker Output 2V (Volume Level 19)
- Test Condition: 30% DEV. at 400 Hz · EQ FLAT

Description		Unit	Nominal	Limit	Condition
Tuning Range	MW	kHz	520~1710		Step: 10 kHz, USA/Canada
	MW	kHz	522~1611		Step: 9 kHz, Korea, PT INDO, Europe
	LW	kHz	153~279		Step: 9 kHz, Europe
Usable Sensitivity	MW-2Band	uV/m	800	1500	MW: 603 kHz, 999 kHz, 1404 kHz
(S/N=20 dB)	MW-3Band	uV/m	1000	2000	MW: 603 kHz, 999 kHz, 1404 kHz
	LW	uV/m	2000	3000	LW: 162 kHz, 207 kHz, 252 kHz
Image Rejection		dB	25	20	1404 kHz
IF Rejection		dB	40	35	603 kHz
AGC Figure of Merit		dB	45	40	From 100 mV/m at 999 kHz
Audio Response		Hz kHz	100 ~ 2.2	120 ~ 2	999 kHz, -6 dB
Selectivity		dB	25	20	500 uV/m, 999 kHz ± 9 kHz
Signal to Noise Ratio	2Band	dB	40	35	999 kHz
	3Band	dB	35	30	
RF Overload THD		%	10	15	80% MOD., 100 mV/m Input
Whistle	3mV/m 2IF, 3IF	%	10	20	
	5mV/m 2IF, 3IF	%	10	20	
Output Voltage	Ref.:1500 mV	mV	±500	±800	400Hz, 5 mV, 30% MOD, Volume Level 19

☞ FM SECTION

FM Performance Test Standard EQ FLAT

Tuning Range : 87.5 MHz - 107.9 MHz Area	Tuning Range : 87.5 MHz - 108 MHz Area
RF Signal : 98.1 MHz Modulation : Mono ±75 kHz DEV. for 1 kHz Stereo ±75 kHz, L=-R	RF Signal : 98.0 MHz Modulation : Mono ±40 kHz DEV. for 1 kHz Stereo ±40 kHz, L=-R

Description			Unit	Nominal	Limit	Condition
Tuning range			MHz	87.5~107.9		Korea, USA/Canada Step: 200 kHz
			MHz	87.5~108		Europe, B, Step: 50 kHz
Usable Sensitivity			uV	2.5	4	90.1/98.1/106.1 MHz, 30 dB≤S/N
			uV	2.5	4	90/98/106 MHz, 26 dB≤SN
Image Rejection			dB	35	30	106/106.1 MHz
IF Rejection			dB	80	70	90/90.1 MHz
Full Limiting			uV	2	4	-3 dB, 75 Ω
50 dB Quieting Sensitivity	Mono	75 kHz DEV.	uV	5	8	IHF B.P.F, 75 dB
		40 kHz DEV.	uV	5	8	
	Stereo	75 kHz DEV.	uV	5	8	
		40 kHz DEV.	uV	70	80	
Total Harmonic Distortion	Mono	75 kHz DEV.	%	1	1.5	IHF B.P.F, 1 kHz, 100 % MOD.
		40 kHz DEV.	%	1	1.5	
	Stereo	75 kHz DEV.	%	1.5	2	
		40 kHz DEV.	%	1.5	2	
Signal to Noise Ratio	Mono	75 kHz DEV.	dB	60	55	IHF B.P.F, 100 % MOD., I mV Input
		40 kHz DEV.	dB	60	55	
	Stereo	75 kHz DEV.	dB	58	54	
		40 kHz DEV.	dB	58	54	
Audio Response at -3 dB			Hz~kHz	45~14	50~13.5	98/98.1 MHz, 100% MOD., 1 mV Input
AM Rejection Ratio			dB	40	30	100 uV~20 mV Input
Search Level			uV	10	±6 dB	75 Ω
Automatic Stereo Threshold			uV	10	±6 dB	75 Ω
Muting Threshold			uV	10	±6 dB	75 Ω
Overload THD			%	1	1.5	100% MOD., 100 mV RF Input
Spurious Response			dB	60	50	ANT. Input 2 uV 1/2IF, IF
Capture Ratio				2	3	40/60 dBu
Stereo Separation		100 Hz	dB	25	20	100% MOD., 1 mV Input, IHF B.P.F
		I kHz	dB	25	20	
		10 kHz	dB	25	20	
Output Voltage		Mono	mV	2300	±500	1 kHz, 5 mV Input, 100% MOD, Volume Level 19

☞ GENERAL

POWER CONSUMPTION	D, K: 180 W B: 200 W A: 90 W
DIMENSIONS (W×H×D)/Unit	270×300×295 mm (10-5/8×11-13/16×11-1/4 inches)
WEIGHT (Net), (ACD353+TDD353)	8.6 kg (19 lbs)
POWER SUPPLIES	D: AC 230 V, 50 Hz (Europe Area) K: AC 220 V, 60 Hz (Korea Area) B: AC 110/220 V, 50/60 Hz (multi voltage Area) A: AC 120 V, 60 Hz (USA, Canada Area)

NOTES:

1. Nominal specs represent the design specs. All units should be able to approximate these, some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable; in no case should a unit to meet limit specs.
2. This manual is based on the Europe (D) standard, and provides information on regional circuit modification through the use of alterate schematic diagram or wiring diagram, and information on regional components variations through the use of parts lists, Design and specifications subject to change without notice.

DISASSEMBLY PROCEDURES

REFER TO PAGES 45 AND 77.

[1] COVER TOP REMOVAL.

Remove 10 screws (S1) to (01 to 10)and than remove the Cover Top ❶ by sliding it to its rear a little.

[2] CD MECHANISM ASSEMBLY REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Disconnect (CP201) from the Main P.C.Board (PCB5).
3. Remove 6 screws (S3) (01, 02, 29 to 32) and then remove the CD Mechanism Assembly (37).

[3] CD MAIN P.C.BOARD (PCB7) REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Remove the CD Mechanism Assembly (37), referring to the previous step [2].
3. Disconnect (CN401, CN402, CN403, CN404 and CN405) from the CD Main P.C.Board (PCB7).
4. Remove the CD Main (PCB7) by pressing the hooks around it outward.

[4] FRONT PANEL ASSEMBLY REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Remove the CD Mechanism Assembly (37), referring to the previous step [2].
3. Remove Card Cable from wafer (CP202) on the Main P.C.Borad (PCB5).
4. Disconnect (CP103) from Headphone P.C.Board (PCB3).
5. Disconnect (CN503) from Deck P.C.Board (PCB8).
6. Remove 6 screws (S3) (03 to 08) and then remove the Front Panel Assembly (AA).

[5] FRONT P.C.BOARD/OPEN, SKIP KEY P.C.BOARD (PCB2/PCB9) REMOVOAL

1. Remove the Cover Top ❶, referring to the previous.
2. Remove the CD Mechanism Assembly (37), referring to the previous step [2].
3. Remove Card Cable from wafer (CP202) on the Main P.C.Borad (PCB5).
4. Remove Card Cable from wafer (CN502) on the Deck P.C.Board (PCB8).
5. Remove 13 screws (S2) (09 to 17, 31, 32, 34, 35) and then remove the Front, Open/Skip key P.C.Board (PCB2, PCB9).

[6] HEADPHONE P.C.BARD REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Remove the CD Mechanism Assembly (37), referring to the previous step [2].
3. Remove a screws (S4) (05) and then remove the Headphone P.C.Board (PCB3).

[7] DECK P.C.BOARD (PCB8) REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Remove the CD Mechanism Assembly (37), referring to the previous step [2].
3. Remove the Front Panel Assembly ❼, referring to the previous step [4].
4. Remove Card Cable from wafer (CP102) on the Front P.C.Borad (PCB2).
5. Disconnect (CN504 and CN505) from Deck P.C.Board (PCB8).
6. Remove 2 wire on the Deck Mechanism.
7. Remove 2 scrwes (S2) (20 and 21) and then remove the Deck P.C.Board (PCB8).

[8] DECK MECHANISM ASSEMBLY REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Do steps [2], [4] and [7].
3. Remove the Door Deck ⓳ and ⓴.
4. Remove 5 screws (S4) (01, 02), (S3) (13, 14, 15) and then remove the Deck Mechanism Assembly (BB).

[9] DECK KEY P.C.BOARD (PCB4) REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Do steps [2], [4] and [8].
3. Remove 5 screws (S2) (23 to 27) and then unsolder CNT104 all leads.

[10] TUNER P.C.BOARD (PCB1) REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Disconnect (CNT1) from Tuner P.C.Board (PCB1).
3. Remove 2 screws (S3) (44 and 45) and then remove the Tuner P.C.Board(PCB1)

[11] MAIN P.C.BOARD (PCB5) REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Do step [2], [4].

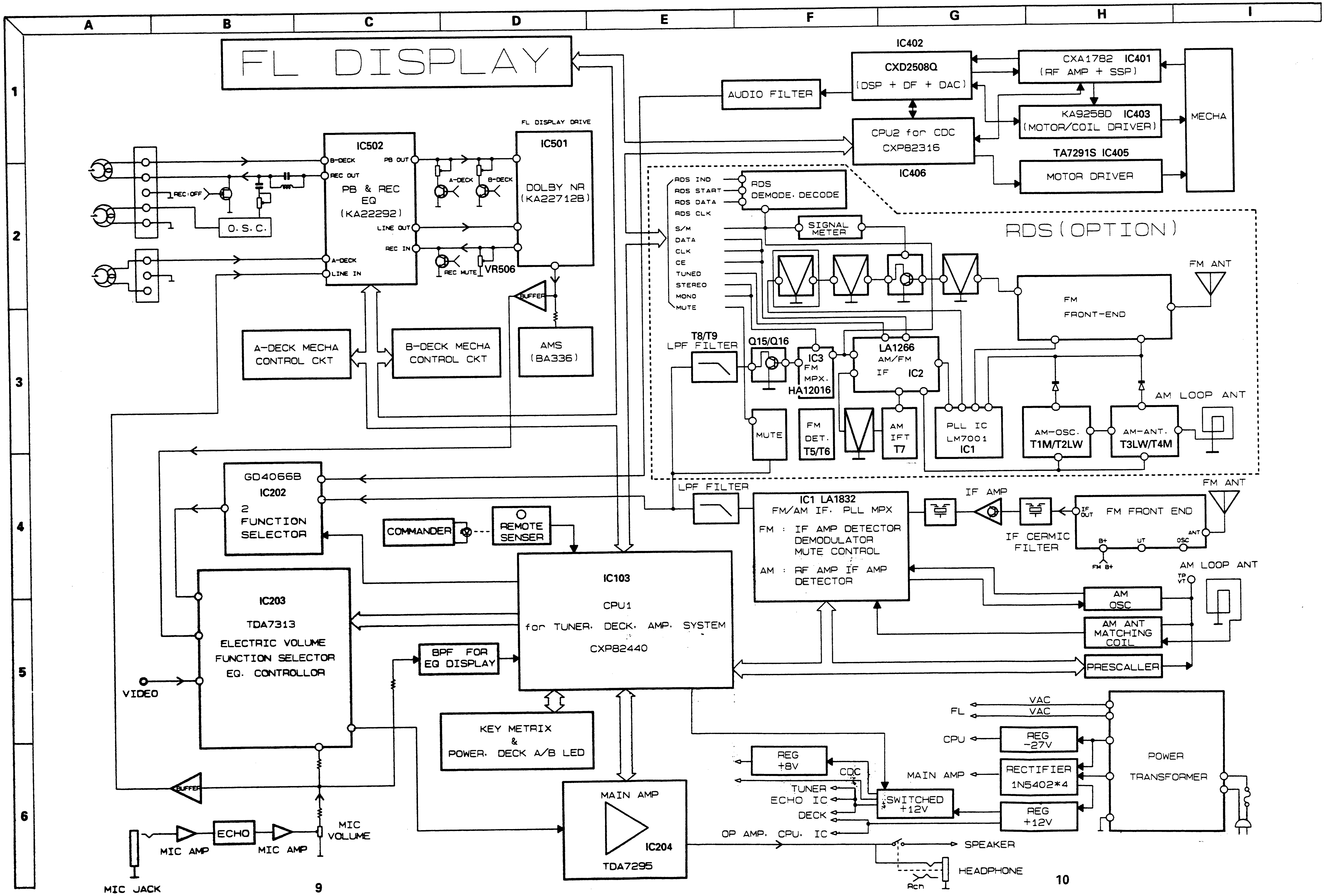
3. Remove Card Cable from wafer (CP202) on the Main P.C.Board (PCB5).
4. Disconnect (CP201 and CP203) from the Main P.C.Board (PCB5).
5. Disconnect (CNT1) from Tuner P.C.Board (PCB1).
6. Disconnect (CP103) from Headphone P.C.Board (PCB3).
7. Disconnect (CNT701) from Voltage P.C.Board (PCB6).
8. Remove 6 screw (S3) (46 to 48, 54, 55) and (S2) (18).
9. Remove 2 Fasteners ❹ and then remove the Main P.C.Board (PCB5).

[12] VOLTAGE P.C.BOARD (PCB6) REMOVAL

1. Remove the Cover Top ❶, referring to the previous step [1].
2. Remove the CD Mechanism Assembly ㊲, referring to the previous step [2].
3. Disconnect (CNT701) from Voltage P.C.Board (PCB6).
4. Disconnect (CP203) from the Main P.C.Board (PCB7).
5. Remove the Cover Insulation (58).
6. Remove 4 screws (S3) (42, 43, 33, 34) and then unsolder power Transformer all leads.

BLOCK DIAGRAM

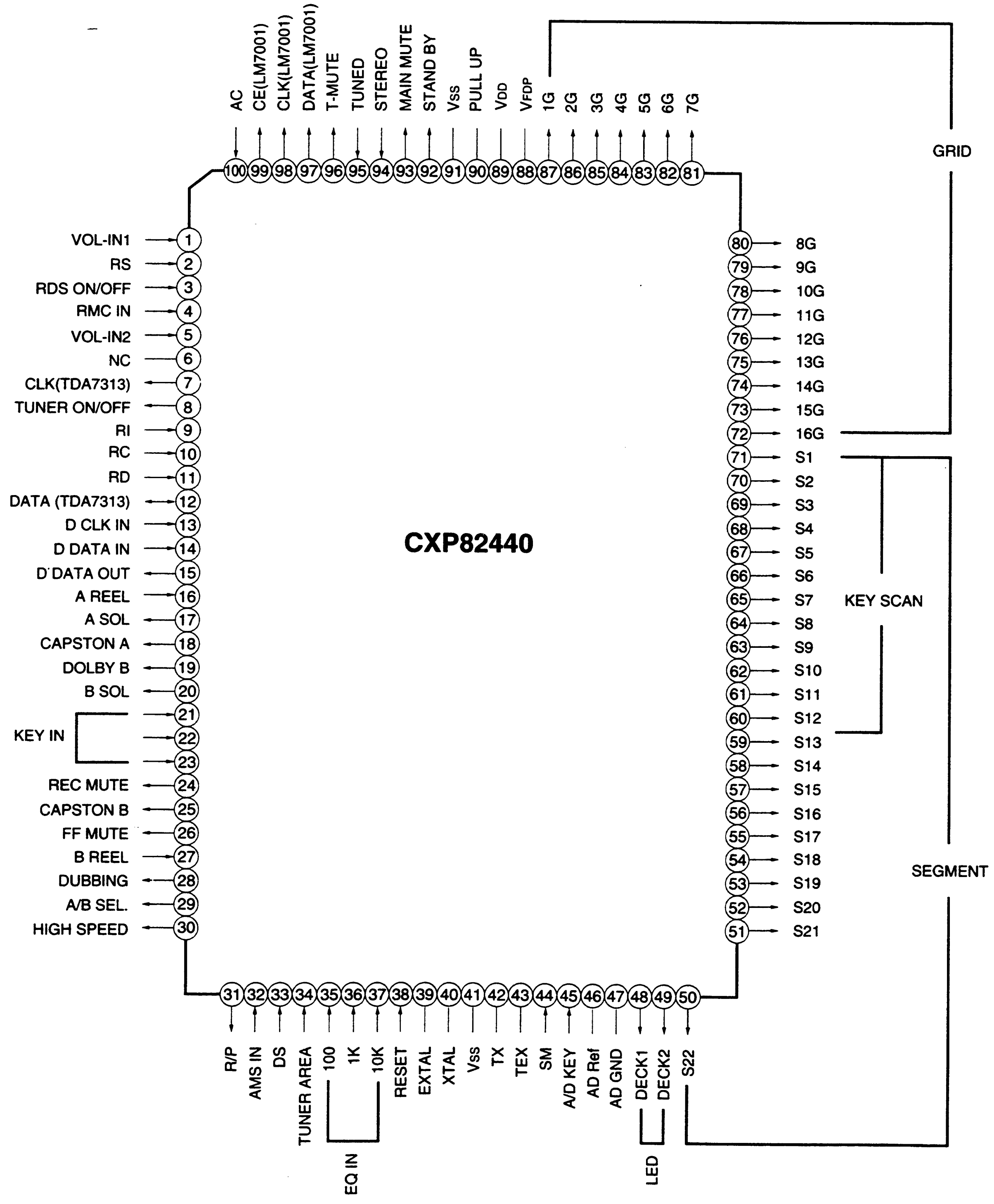
Model No. : P-363R/P-363RDS


A
B
C
D
E
F
G
H
I
1
2
3
4
5
6
FL DISPLAY
FL DISPLAY DRIVE
IC502
B-DECK
REC OUT
PB OUT
PB & REC
EQ
(KA22292)
LINE OUT
REC IN
A-DECK
LINE IN
REC:OFF
O.S.C.
A-DECK
B-DECK
REC MUTE
VR506
IC501
DOLBY NR
(KA22712B)
BUFFER
AMS
(BA336)
A-DECK MECHA
CONTROL CKT
B-DECK MECHA
CONTROL CKT
IC402
CXD2508Q
(DSP + DF + DAC)
AUDIO FILTER
CXA1782 IC401
(RF AMP + SSP)
KA9258D IC403
(MOTOR/COIL DRIVER)
MECHA
CPU2 for CDC
CXP82316
IC406
TA7291S IC405
MOTOR DRIVER
RDS IND
RDS START
RDS DATA
RDS CLK
S/M
DATA
CLK
CE
TUNED
STEREO
MONO
MUTE
RDS
DEMODE. DECODE
SIGNAL
METER
RDS (OPTION)
FM ANT
FM
FRONT-END
T8/T9
LPF FILTER
Q15/Q16
IC3
FM
MPX.
HA12016
LA1266
AM/FM
IF IC2
MUTE
FM
DET.
T5/T6
AM
IFT
T7
PLL IC
LM7001
IC1
AM-OSC.
T1M/T2LW
AM-ANT.
T3LW/T4M
AM LOOP ANT
GD4066B
IC202
2
FUNCTION
SELECTOR
COMMANDER
REMOTE
SENSER
IC103
CPU1
for TUNER. DECK. AMP. SYSTEM
CXP82440
LPF FILTER
IC1 LA1832
FM/AM IF. PLL MPX
FM : IF AMP DETECTOR
DEMODULATOR
MUTE CONTROL
AM : RF AMP IF AMP
DETECTOR
IF AMP
IF CERMIC
FILTER
FM ANT
IF OUT
FM FRONT END
ANT
B+
UT
OSC
FM B+
AM LOOP ANT
TP
VT
AM
OSC
AM ANT
MATCHING
COIL
PRESCALLER
IC203
TDA7313
ELECTRIC VOLUME
FUNCTION SELECTOR
EQ. CONTROLLOR
VIDEO
BPF FOR
EQ DISPLAY
KEY METRIX
&
POWER. DECK A/B LED
BUFFER
MIC JACK
MIC AMP
ECHO
MIC AMP
MIC
VOLUME
MAIN AMP
IC204
TDA7295
FL
VAC
VAC
CPU
REG
-27V
MAIN AMP
RECTIFIER
1N5402*4
REG
+12V
POWER
TRANSFORMER
REG
+8V
CDC
TUNER
ECHO IC
DECK
SWITCHED
+12V
OP AMP. CPU. IC
SPEAKER
HEADPHONE
Rch

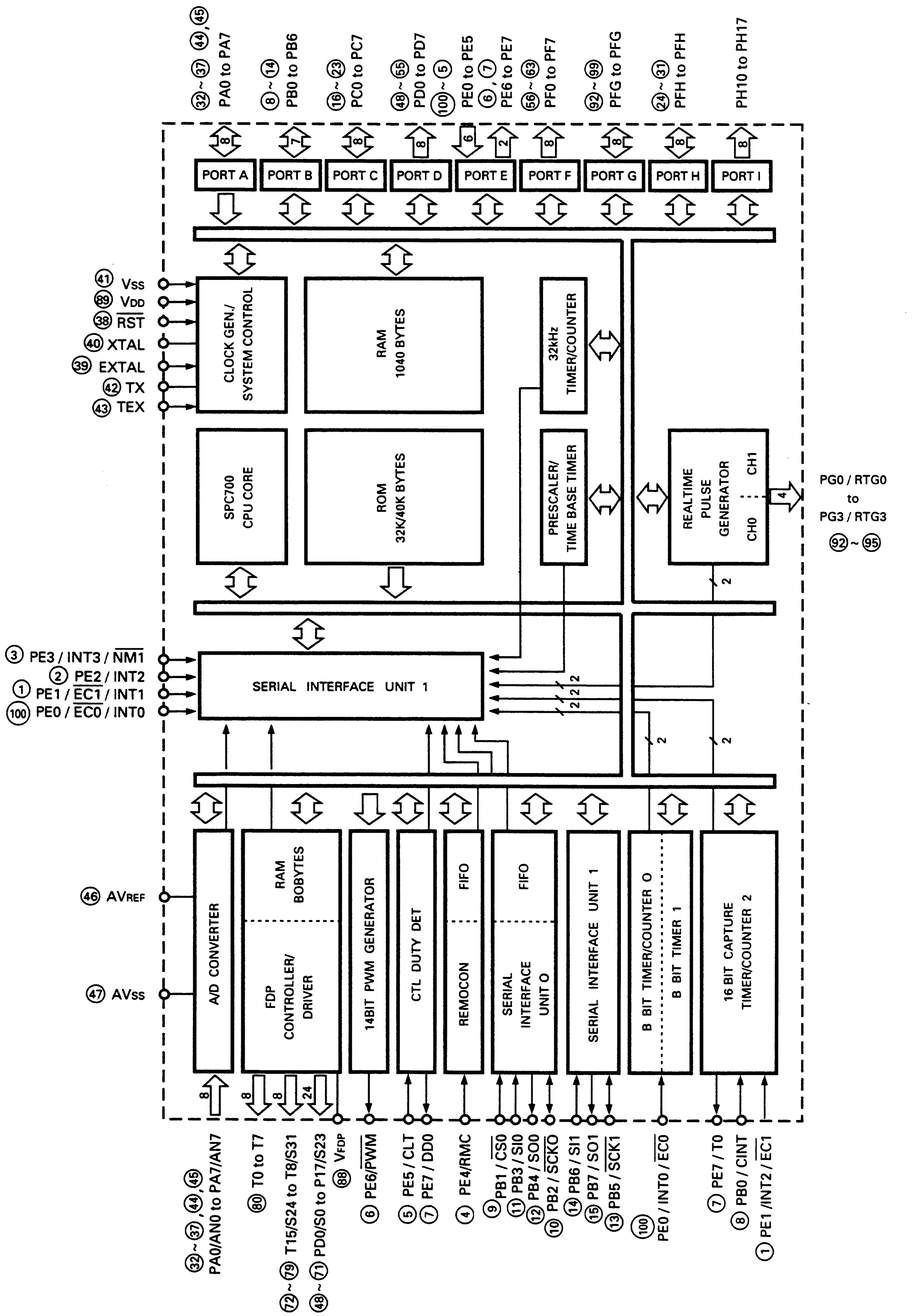
CIRCUIT DESCRIPTION

1. IC103 : CXP82440

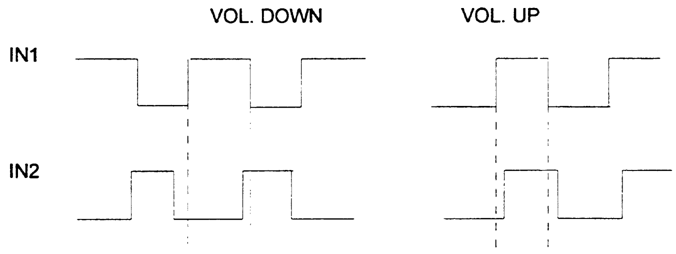
1-1. Pin Configration


AC
CE(LM7001)
CLK(LM7001)
DATA(LM7001)
T-MUTE
TUNED
STEREO
MAIN MUTE
STAND BY
Vss
PULL UP
VDD
VFDP
1G
2G
3G
4G
5G
6G
7G
GRID
VOL-IN1
RS
RDS ON/OFF
RMC IN
VOL-IN2
NC
CLK(TDA7313)
TUNER ON/OFF
RI
RC
RD
DATA (TDA7313)
D CLK IN
D DATA IN
D DATA OUT
A REEL
A SOL
CAPSTON A
DOLBY B
B SOL
KEY IN
REC MUTE
CAPSTON B
FF MUTE
B REEL
DUBBING
A/B SEL.
HIGH SPEED
CXP82440
8G
9G
10G
11G
12G
13G
14G
15G
16G
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
S18
S19
S20
S21
KEY SCAN
SEGMENT
R/P
AMS IN
DS
TUNER AREA
100
1K
10K
RESET
EXTAL
XTAL
Vss
TX
TEX
SM
A/D KEY
AD Ref
AD GND
DECK1
DECK2
S22
EQ IN
LED

1-2. Block Diagram


㉜~㊲, ㊹, ㊺ PA0 to PA7
⑧~⑭ PB0 to PB6
⑯~㉓ PC0 to PC7
㊾~(55) PD0 to PD7
(100)~⑤ PE0 to PE5
⑥, ⑦ PE6 to PE7
(56)~(63) PF0 to PF7
(92)~(99) PFG to PFG
㉔~㉛ PFH to PFH
PH10 to PH17
PORT A
PORT B
PORT C
PORT D
PORT E
PORT F
PORT G
PORT H
PORT I
㊶ Vss
(89) VDD
㊳ RST
㊵ XTAL
㊴ EXTAL
㊷ TX
㊸ TEX
CLOCK GEN./ SYSTEM CONTROL
RAM 1040 BYTES
32kHz TIMER/COUNTER
SPC700 CPU CORE
ROM 32K/40K BYTES
PRESCALER/ TIME BASE TIMER
REALTIME PULSE GENERATOR
CH1
CH0
PG0 / RTG0 to PG3 / RTG3
(92)~(95)
③ PE3 / INT3 / NMI
② PE2 / INT2
① PE1 / EC1 / INT1
(100) PE0 / EC0 / INT0
SERIAL INTERFACE UNIT 1
㊻ AVREF
㊼ AVss
A/D CONVERTER
RAM 80BYTES
FDP CONTROLLER/ DRIVER
14BIT PWM GENERATOR
CTL DUTY DET
FIFO
REMOCON
FIFO
SERIAL INTERFACE UNIT 0
SERIAL INTERFACE UNIT 1
8 BIT TIMER/COUNTER 0
8 BIT TIMER 1
16 BIT CAPTURE TIMER/COUNTER 2
㉜~㊲, ㊹, ㊺ PA0/AN0 to PA7/AN7
(80) T0 to T7
(72)~(79) T15/S24 to T8/S31
㊾~(71) PD0/S0 to P17/S23
(88) VFDP
⑥ PE6/PWM
⑤ PE5 / CLT
⑦ PE7 / DD0
④ PE4/RMC
⑨ PB1 / CS0
⑪ PB3 / SI0
⑫ PB4 / SO0
⑩ PB2 / SCK0
⑭ PB6 / SI1
⑮ PB7 / SO1
⑬ PB5 / SCK1
(100) PE0 / INT0 / EC0
⑦ PE7 / T0
⑧ PB0 / CINT
① PE1 /INT2 / EC1

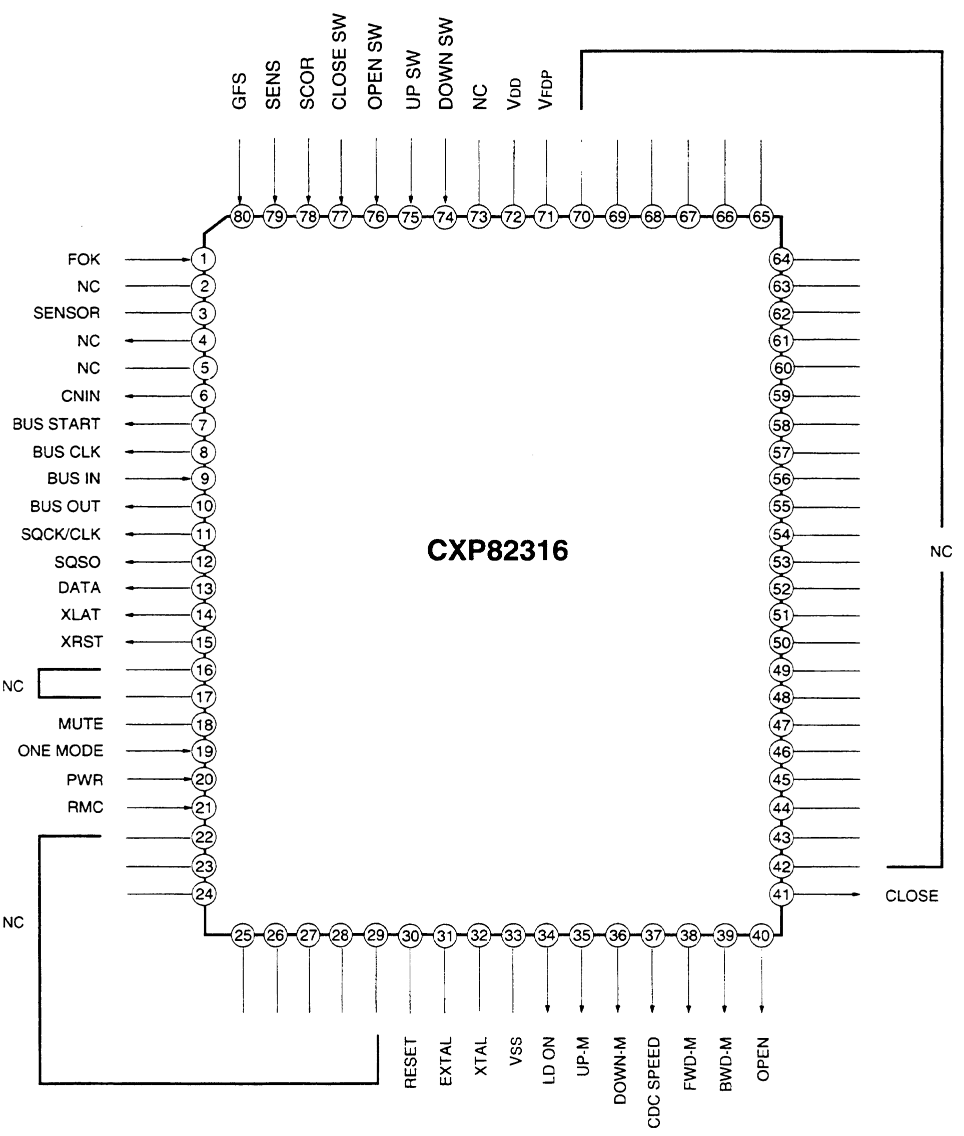
1-3. Input and Output Terminal Functions

Pin No.	Symbol	Description
1	VOL-IN1	Input for volume up/down. 
2	RS	DATA START signal input from LC7370(pin 14).
3	RDS ON/OFF	Input to select RDS or non-RDS. (At "H", RDS is selected.)
4	RMC. IN	Input for remocon data.
5	VOL-IN2	Input for volume up/down.
6	NC	Not used !
7	CLK(TDA7313)	Clock signal output to TDA7313.
8	TUNER ON/OFF	Output for switching on or off TUNER. (At "H", TUNER is on.)
9	RI	Input signal from TDA7330B(pin 15) for ARI indication.
10	RC	CLOCK signal input from LC7073(pin 15).
11	RD	DATA signal input from LC7073(pin 13).
12	DATA(TDA7313)	Data signal output to TDA7313.
13	D CLK IN	CLOCK signal input from CXP82316(pin 8).
14	D DATA IN	DATA signal input from CXP82316(pin 9).
15	D DATA OUT	DATA signal output from CXP82316(pin 10).
16	A REEL	Input to detect the reel pulse of DECK 1.
17	A SOL	Output to drive the solenoid of DECK 1.
18	CAPSTON A	Output do drive the capston motor of DECK 2.
19	DOLBY B	Output to select DOLBY NR or not.(DOLBY NR ON: "L", OFF: "H")
20	B SOL	Output to drive the solenoid of DECK 2.
21	KEY IN 3	Data input for key scan.
22	KEY IN 2	Data input for key scan.
23	KEY IN 1	Data input for key scan.
24	REC MUTE	Output for record mute. (At "H", it is active.)
25	CAPSTON B	Output to drive the capstan motor of DECK 2.
26	FF MUTE	Output to mute line output during FF or REW.(At "H", it is active.)
27	B REEL	Input to detect the reel pulse of DECK 2.
28	DUBBING	Output for dubbing. (Dubbing mode : "H", Play mode : "L")
29	A/B SELECTOR	Output to select the line output of DECK 1 or 2. (DECK 1 : "H", DECK 2 : "L")
30	HIGH SPEED	Output to control the tape speed. (At "L", it is in the high speed dubbing mode)
31	R/P	Output to select recording or play mode. (Recording mode : "H", Play mode : "L")
32	AMS IN	Input to detect the blank space during AMS(Automatic Music searching). (At "H", it is active)
33	DS	DATA START signal input from CXP82316(pin 7).

<table>
<tr><th>Pin No.</th><th>Symbol</th><th>Description</th></tr>
<tr><td>34</td><td>TUNER AREA</td><td>According to region, input for selecting the frequency ranges steps of FM and AM.
<table>
<tr><th>Input Voltage</th><th>Frequency Ranges</th><th>Steps</th></tr>
<tr><td>0 V
R177 : OPEN</td><td>FM: 87.5 ~ 108 MHz
AM: 522 ~ 1611 kHz</td><td>100 kHz
9 kHz</td></tr>
<tr><td>1 V
R177 : 39KΩ</td><td>FM: 87.5 ~ 108 MHz
AM: 520 ~ 1710 kHz</td><td>100 kHz
10 kHz</td></tr>
<tr><td>2 V
R177 : 18KΩ</td><td>FM: 87.5 ~ 108 MHz
MW: 522 ~ 1611 kHz
LW: 153 ~ 279 kHz</td><td>50 kHz
9 kHz
9 kHz</td></tr>
<tr><td>3 V
R177 : 8.2KΩ</td><td>FM: 87.5 ~ 108 MHz
AM: 522 ~ 1611 kHz</td><td>50 kHz
9 kHz</td></tr>
<tr><td>4 V
R177 : 2.7KΩ</td><td>FM: 87.5 ~ 107.9 MHz
AM: 522 ~ 1611 kHz</td><td>200 kHz
9 kHz</td></tr>
<tr><td>5 V
R177 : 680Ω</td><td>FM: 87.5 ~ 107.9 MHz
AM: 520 ~ 1710 kHz</td><td>200 kHz
10 kHz</td></tr>
</table></td></tr>
<tr><td>35</td><td>100</td><td>Input for controlling the level display at 100Hz.</td></tr>
<tr><td>36</td><td>1 k</td><td>Input for controlling the level display at 1kHz.</td></tr>
<tr><td>37</td><td>10 k</td><td>Input for controlling the level display at 10kHz.</td></tr>
<tr><td>38</td><td>RESET</td><td>Input for resetting the CPU. (At "L", it is active.)</td></tr>
<tr><td>39</td><td>EXTAL</td><td>Input for crystal oscillator.</td></tr>
<tr><td>40</td><td>XTAL</td><td>Output for crytal oscillator.</td></tr>
<tr><td>41</td><td>VSS</td><td>This pin provides the ground potential.</td></tr>
<tr><td>42</td><td>TX</td><td>Output for clock crytal oscillator.</td></tr>
<tr><td>43</td><td>TEX</td><td>Input for clock crytal oscillator.</td></tr>
<tr><td>44</td><td>SM</td><td>Input for detecting TUNED and RDS ON condition. (RDS version only)</td></tr>
<tr><td>45</td><td>A/D KEY</td><td>Data input for key scan of DECK using A/D converter.</td></tr>
<tr><td>46</td><td>AD Ref.</td><td>Reference voltage of A/D converter.</td></tr>
<tr><td>47</td><td>AD GND</td><td>Analog ground.</td></tr>
<tr><td>48</td><td>DECK 1 LED</td><td>Output to drive DECK 1 LED. (At "H", it is active.)</td></tr>
<tr><td>49</td><td>DECK 2 LED</td><td>Output to drive DECK 2 LED. (At "H", it is active.)</td></tr>
<tr><td>50~59</td><td>S22~S13</td><td>Segment signal output for FIP.</td></tr>
<tr><td>60~62</td><td>S12~S10</td><td>Segment signal output for FIP and data output for key scan of Deck.</td></tr>
<tr><td>63~71</td><td>S9~S1</td><td>Segment signal output for FIP and data output for key scan.</td></tr>
<tr><td>72~87</td><td>16G~1G</td><td>Grid signal output for FIP.</td></tr>
<tr><td>88</td><td>VFDP</td><td>-30V power supply for FIP.</td></tr>
<tr><td>89</td><td>VDD</td><td>+5V power supply.</td></tr>
<tr><td>90</td><td>PULL UP</td><td>This pin should be connected to VDD during operation.</td></tr>
<tr><td>91</td><td>VSS</td><td>This pin provides the ground potential.</td></tr>
<tr><td>92</td><td>STAND BY</td><td>When power is on, control data output is "H".
When power off on, control data output is "L".</td></tr>
<tr><td>93</td><td>MAIN MUTE</td><td>Output for main mute. (At "L", it is active)</td></tr>
<tr><td>94</td><td>STEREO</td><td>Input for detecting STEREO condition.</td></tr>
<tr><td>95</td><td>TUNED</td><td>Input for detecting TUNED condition. (In the case of RDS version, this pin should be connected to the ground potential.)</td></tr>
<tr><td>96</td><td>T-MUTE</td><td>Output for TUNER mute. (At "H", it is active.)</td></tr>
<tr><td>97</td><td>DATA(LM7001)</td><td>Data signal output to LM7001.</td></tr>
<tr><td>98</td><td>CLK(LM7001)</td><td>Clock signal output to LM7001.</td></tr>
<tr><td>99</td><td>CE(LM7001)</td><td>Chip enable signal output to LM7001.</td></tr>
<tr><td>100</td><td>AC</td><td>Input to detect power down. (At "L", it is active.)</td></tr>
</table>

2. IC406 : CXP82316

2-1. Pin Configration


CXP82316
GFS
SENS
SCOR
CLOSE SW
OPEN SW
UP SW
DOWN SW
NC
VDD
VFDP
NC
FOK
NC
SENSOR
NC
NC
CNIN
BUS START
BUS CLK
BUS IN
BUS OUT
SQCK/CLK
SQSO
DATA
XLAT
XRST
NC
MUTE
ONE MODE
PWR
RMC
NC
CLOSE
RESET
EXTAL
XTAL
VSS
LD ON
UP-M
DOWN-M
CDC SPEED
FWD-M
BWD-M
OPEN
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
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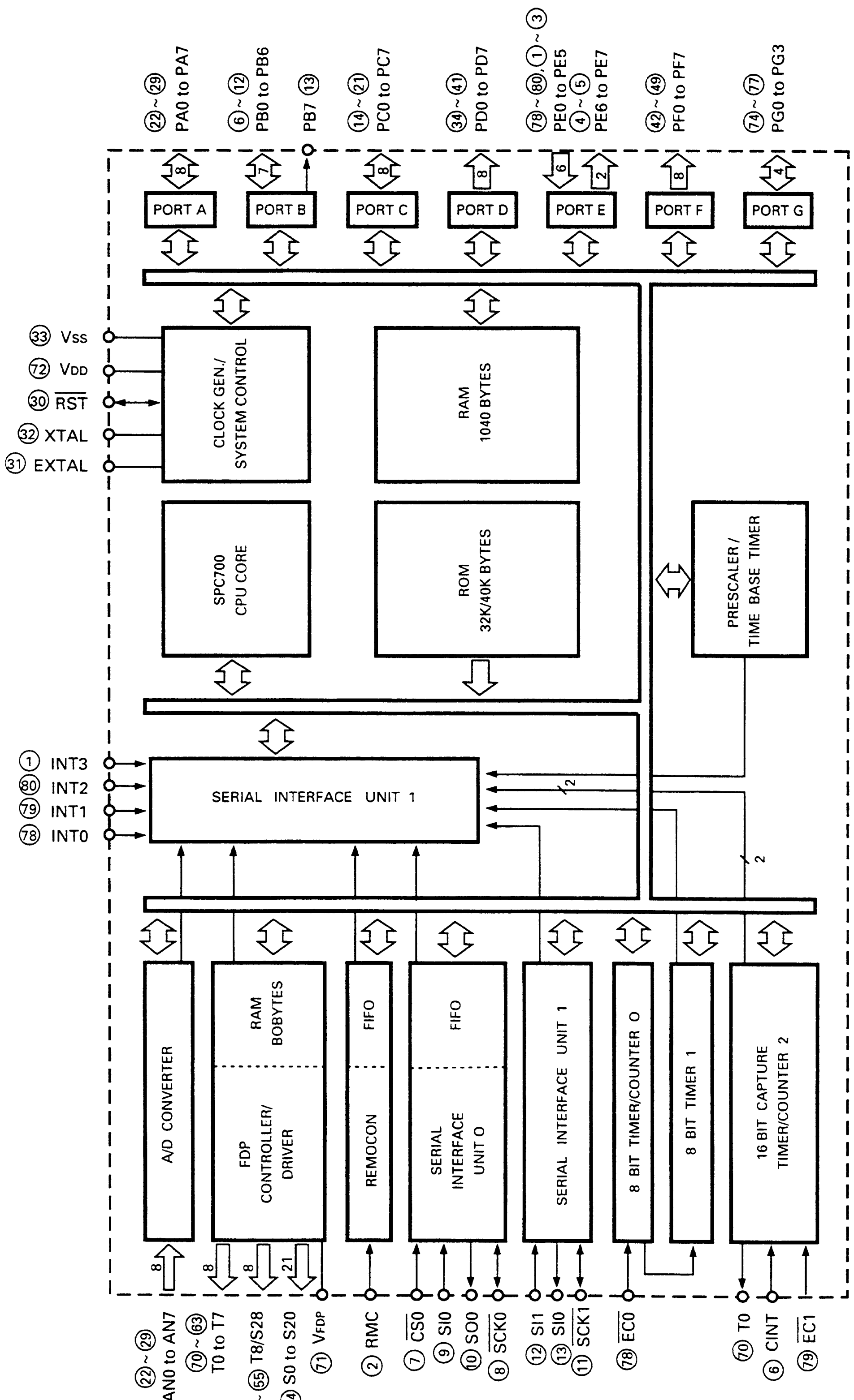
2-2. Block Diagram


㉒~㉙ PA0 to PA7
⑥~⑫ PB0 to PB6
PB7 ⑬
⑭~㉑ PC0 to PC7
㉞~㊶ PD0 to PD7
(78)~(80), ①~③ PE0 to PE5
④~⑤ PE6 to PE7
㊷~㊾ PF0 to PF7
(74)~(77) PG0 to PG3
8
7
8
8
6
2
8
4
PORT A
PORT B
PORT C
PORT D
PORT E
PORT F
PORT G
㉝ Vss
(72) VDD
㉚ RST
㉜ XTAL
㉛ EXTAL
CLOCK GEN./ SYSTEM CONTROL
RAM 1040 BYTES
SPC700 CPU CORE
ROM 32K/40K BYTES
PRESCALER / TIME BASE TIMER
① INT3
(80) INT2
(79) INT1
(78) INT0
SERIAL INTERFACE UNIT 1
2
2
A/D CONVERTER
FDP CONTROLLER/ DRIVER
RAM 80BYTES
REMOCON
FIFO
SERIAL INTERFACE UNIT 0
FIFO
SERIAL INTERFACE UNIT 1
8 BIT TIMER/COUNTER 0
8 BIT TIMER 1
16 BIT CAPTURE TIMER/COUNTER 2
8
8
8
21
㉒~㉙ AN0 to AN7
(70)~(63) T0 to T7
(62)~(55) T8/S28
㉟~(54) S0 to S20
(71) VFDP
② RMC
⑦ CS0
⑨ SI0
⑩ SO0
⑧ SCK0
⑫ SI1
⑬ SO1
⑪ SCK1
(78) EC0
(70) T0
⑥ CINT
(79) EC1

2-3. Input and Output Terminal Functions

Pin No.	Symbol	Description
1	FOK	Focus OK input from CXD2058Q(pin 23).
2	NC	Not used ! This pin should be connected to VDD during operation.
3	SENSOR	Input to detect the position of roulette.
4	CD ON	Not used !
5	NC	Not used !
6	CNIN	Input from C.OUT of CXA1782.
7	BUS START	DATA START output to CXP82440 (pin 33).
8	BUS CLOCK	CLOCK signal output to CXP82440 (pin 13).
9	BUS IN	DATA signal input to CXP82440 (pin 15).
10	BUS OUT	DATA signal output to CXP82440 (pin 14).
11	SQCK/CLK	SQCK and CLK output to CXD2058Q (pin 5 and pin 11).
12	SQSO	SQSO output to CXD2058Q(pin 4).
13	DATA	DATA output to CXD2508Q.
14	XLAT	XLAT output to CXD2058Q.
15	XRST	Output to reset CXD2058Q(pin 8) and CXA1782Q(pin 22).
16~17	NC	Not used !
18	MUTE	Output for CD line mute.
19	1MODE	Not used ! (This pin is test pin for production.)
20	PWR	Not used ! (This pin is test pin for production.)
21	RMC	Not used ! (This pin is test pin for production.)
22~29	NC	Not used ! This pin should be connected to VSS during operation.
30	RESET	Input to reset CPU.
31	EXTAL	Input for crystal oscillator.
32	XTAL	Output for crytal oscillator.
33	VSS	This pin provides the ground potential.
34	LD ON	LD ON output to CXA1782Q.
35	UP-M	Output to load the pick-up unit. (At "H", it is active.)
36	DOWN-M	Output to unload the pick-up unit. (At "H", it is active.)
37	CDC SPEED	Output to control the speed of roulett.
38	FWD-M	Output to turn roulette clockwise. (At "H", it is active.)
39	BWD-M	Output to turn roulette counter clockwise. (At "H", it is active.)
40	OPEN	Output to open tray. (At "H", it is active.)
41	CLOSE	Output to close tray. (At "H", it is active.)
42~70	NC	Not used !
71	VFDP	Not used ! This pin should be connected to VDD during operation.
72	VDD	+5V power supply.
73	NC	Not used ! This pin should be connected to VDD during operation.
74	DOWN SW	Input to detect the pick-up down.
75	UP SW	Input to detect the pick-up up.
76	OPEN SW	Input to detect the tray open.
77	CLOSE SW	Input to detect the tray close.
78	SCOR	Subcode sync input from CXD2058Q(pin 1) during CD operation.
79	SENS	Sens input from CXD2058Q.
80	GFS	GFS input from CXD2058Q(pin 51) during CD operation.

PICKUP REPLACEMENT

Caution:
Laser diodes are extremely suceptable to damage from staatic electricity. Even if a static discharge does not ruin the diode, it can shorten its life or cause it to work improperly. When replacing the pickup take approprate measures, such as using a conductive mat and a grounded soldering iron to protect the laser diode from static damage.

1. Remove the CD mechanism assembly by refering to the disassembly instructions (Figure 3).

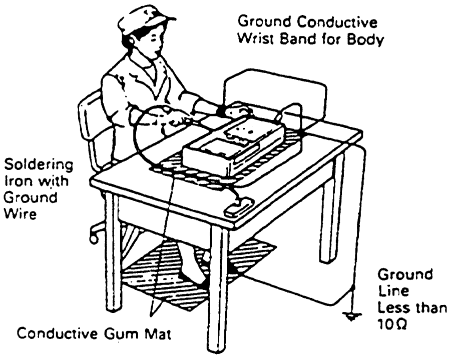

Ground Conductive Wrist Band for Body
Soldering Iron with Ground Wire
Ground Line Less than 10Ω
Conductive Gum Mat

Figure 3

2. 1) Remove the two screws ①, ②
   and then remove the bracket pickup.
   2) Remove the two screws ③, ④ (Figure 4).

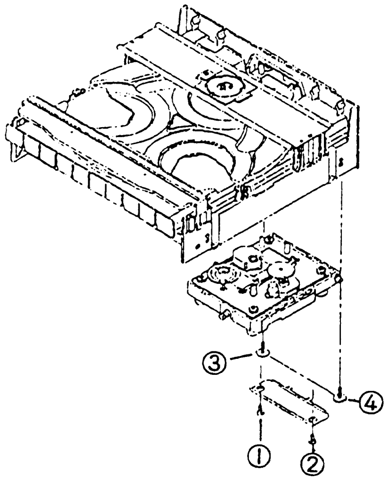


Figure 4

3. Remove the Gear A (Figure 5).
4. Pull out the Slide Shaft.

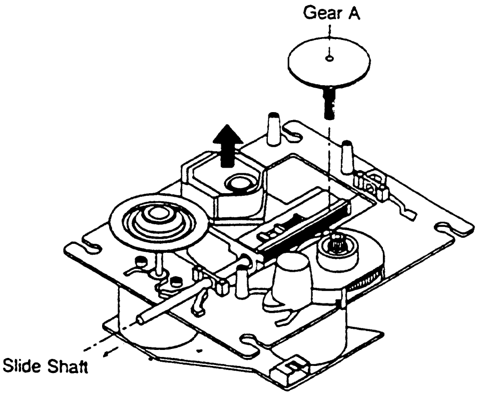

Gear A
Slide Shaft

Figure 5

5. Remove the pickup (See Figure 6).

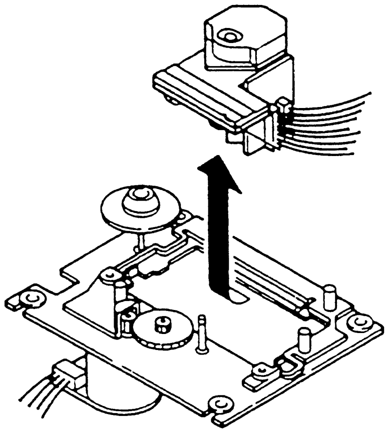


Figure 6

6. Refer to the EXPLODED VIEW II of the compact disc mechanism on page 47 for detailed illustmations.

OPERATION CHECK

When the power switch is turned on after the chucking arm is removed, observe the objective lens and chuck the following. (The optical system block should be at the lead-in position when it is checked.)

- The disc table should be at the innermost position after the chucking arm is removed.
- The diffused light of the laser beam can be seen when the power switch is turned on.
- Vertical (up down) movement of the objective lens take place 2 or 3 times.

ALIGNMENT PROCEDURES

TUNER

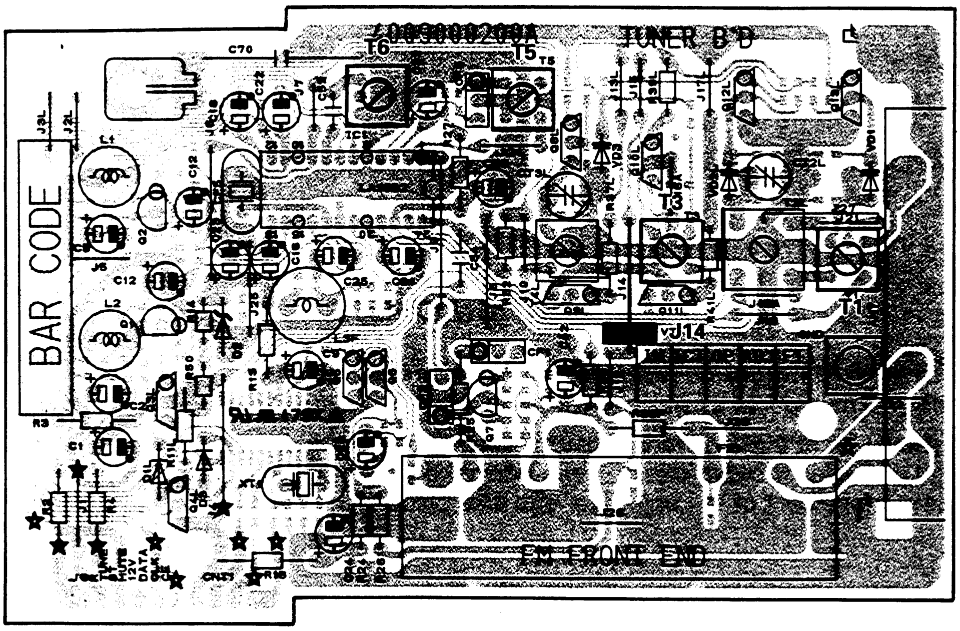
1. Equipment Required

- AM Standard Signal Generator (AM SSG)
- Oscilloscope
- AC Voltmeter
- FM Standard Signal Generator (FM SSG)
- Stereo Modulator
- Audio Generator
- Distortion Meter
- DC Voltmeter
- Frequency Counter

Note : Disconnect external FM antenna prior to alignment.

2. Non RDS Version Alignment

2-1. Alignment and Test Point



2-2. AM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator modulation : 30 %
- RF signal frequency : 400 Hz
- Switch : Press the BAND button to AM

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Voltage	520 kHz (522 kHz)	520 kHz (522 kHz)	DC Volt meter to J14	T3 AM OSC(R)	DC 1±0.2 V
2	RF Tuning	600 kHz (603 kHz)	600 kHz (603 kHz)	AC voltmeter to speaker terminal of L or R channel	T1 MW ANT(W)	Maximize audio output
		* Feed signal should be fed to loop antenna through the test loop antenna 60 cm distant from the appliance.				
3	IF	1000 kHz (999 kHz)	1000 kHz (999 kHz)	IF genescope to speaker terminal of L or R channel	T5 AM IFT	Symmetrical curve on AM IF genescope

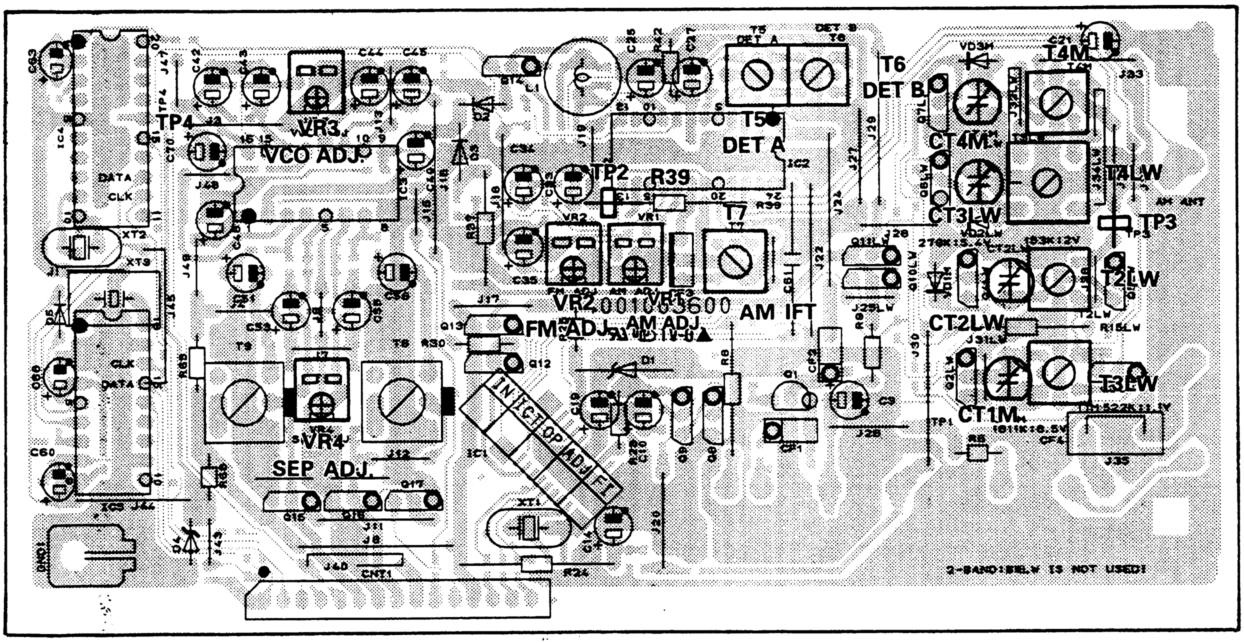
2-3. FM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- RF signal frequency : 1 kHz
- Signal generator deviation : 75 kHz
- Switch : Press the BAND button to FM

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	THD (Mono)	98.1 MHz (98.0 MHz) 1000 µV/m	98.1 MHz (98.0 MHz)	Distortion meter to speaker terminal of L or R channel	T6 FM-DET	Minimize distortion

3. RDS Version Alignment

3-1. Alignment and Test Point


TP4
VR3
VCO ADJ
TP2
R39
T7
T5
DET A
T6
DET B
T4M
CT4M
T4LW
CT3LW
TP3
T2LW
CT2LW
T3LW
CT1M
VR2
FM ADJ
AM ADJ
AM IFT
VR4
SEP ADJ
T8
XT1
XT2
XT3
DATA
CLK
2-BAND:T3LW IS NOT USED!

3-2. AM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator modulation : 30 %
- RF signal frequency : 400 Hz
- Switch : Press the BAND button to AM

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Voltage	520 kHz	520 kHz 1)	DC Volt meter to J30(TP1)	T1M AM OSC(R)	DC 1.1±0.2 V
		1619 kHz	1619 kHz 2)		CT1M	DC 8.5±0.2 V
		* Repeat the step 1) and 2) until the DC voltmeter reads the tuning voltage metioned above.				
2	RF Tuning	600 kHz	600 kHz 1)	AC voltmeter and oscilloscope to speaker terminal of L or R channel	T4M MW ANT(W)	Maximize audio output
		1400 kHz	1400 kHz 2)		CT4M	
		* Feed signal should be fed to loop antenna through the test loop antenna 60 cm distant from the appliance. * Repeat the step 1) and 2) until no further improvement occurs.				

3	IF	1000 kHz	1000 kHz	IF genescope to speaker terminal of L or R channel	T7 AM IFT	Symmetrical curve on AM IF genescope
4	Tuned Level	1000 kHz 800 μV/m	1000 kHz		VR1	"Tuned" flag in the FL display light on

3-3. LW Alignment

- Switch : Press the BAND button to LW

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Voltage	153 kHz	153 kHz 1)	DC Volt meter to J30(TP1)	T2LW LW OSC(A)	DC 2±0.2 V
		279 kHz	279 kHz 2)		CT2LM	DC 5.4±0.3 V
		* Repeat the step 1) and 2) until the DC voltmeter reads the tuning voltage metioned above.				
2	RF Tuning	162 kHz	162 kHz 1)	AC voltmeter and oscilloscope to speaker terminal of L or R channel	T3LW LW ANT(B)	Maximize audio output
		252 kHz	252 kHz 2)		CT3LW	
		* Feed signal should be fed to loop antenna through the test loop antenna 60 cm distant from the appliance. * Repeat the step 1) and 2) until no further improvement occurs.				

3-4. FM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator deviation : 40 kHz
- RF signal frequency : 1 kHz
- Switch : Press the BAND button to FM and the FM MODE button to MONO

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Band Widt	98.0 MHz	98.0 MHz	DC Volt meter to R39(TP2-TP3)	T5	Zero reading on DC Volt meter
2	THD	98.0 MHz	98.0 MHz	Distortion meter to speaker terminal of L or R channel	T6	Minimize distortion
3	Tuned Level	98.0 MHz SSG output level : 10 μV/m	98.0 MHz		VR2	"Tuned" flag in the FL display light on

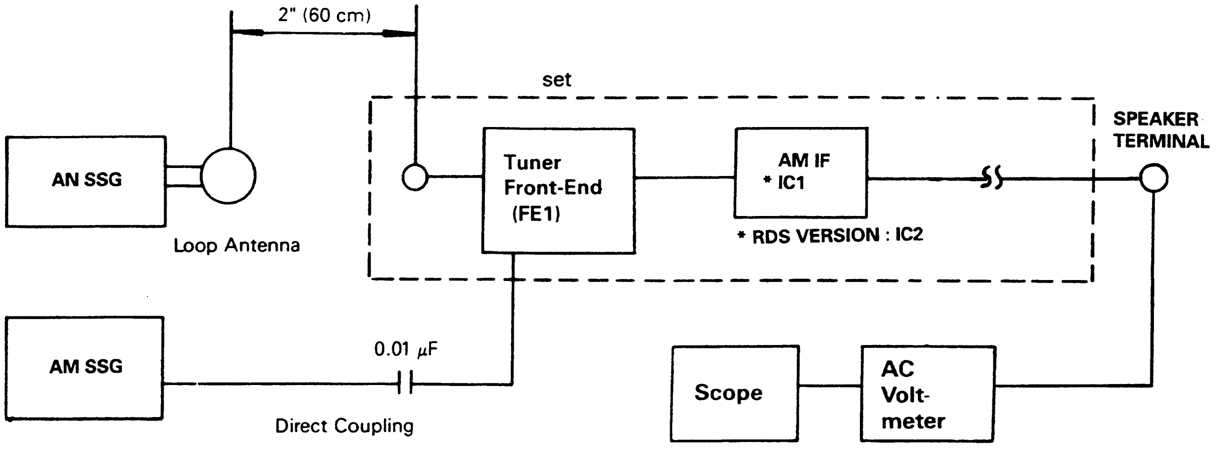
3-5. MPX Alignment

- Signal generator frequency : 98 MHz
- Signal generator deviation : 40 kHz
- RF signal frequency : 1 kHz
- Signal generator output level : 1000 µV/m
- Connect signal generator to FM antenna terminal through FM dummy antenna (75 Ω)
- Switch : Press the BAND button to FM and the FM MODE button to STEREO

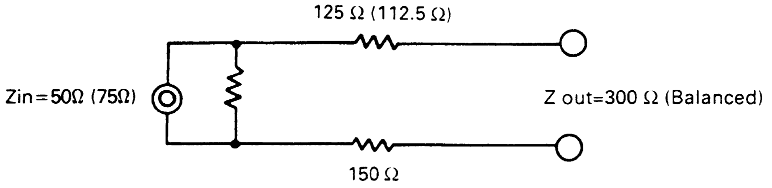
Step	Subject	19 kHz Modulation Level	Signal Generator Setting	Equipment Connection	Adjustment Point	Adjust for
1	VCO	8 % Modulation	Pilot off Carrier only	Frequency counter to TP4(HOT) of PCB and ground	VR3	76 kHz
2	Seperation R → L	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of R channel	VR4	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of L channel		AC voltmeter reading should be at least 20 dB below
3	Seperation L → R	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of L channel	VR4	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of R channel		AC voltmeter reading should be at least 20 dB below
If you could not obtain -20 dB readings in steps 2 and 3, readjust VR4 until you abtain -20 dB readings for both steps 3 and 4. Norminal is -25 dB.						

4. Equipment Connection

4-1. AM Alignment Connection

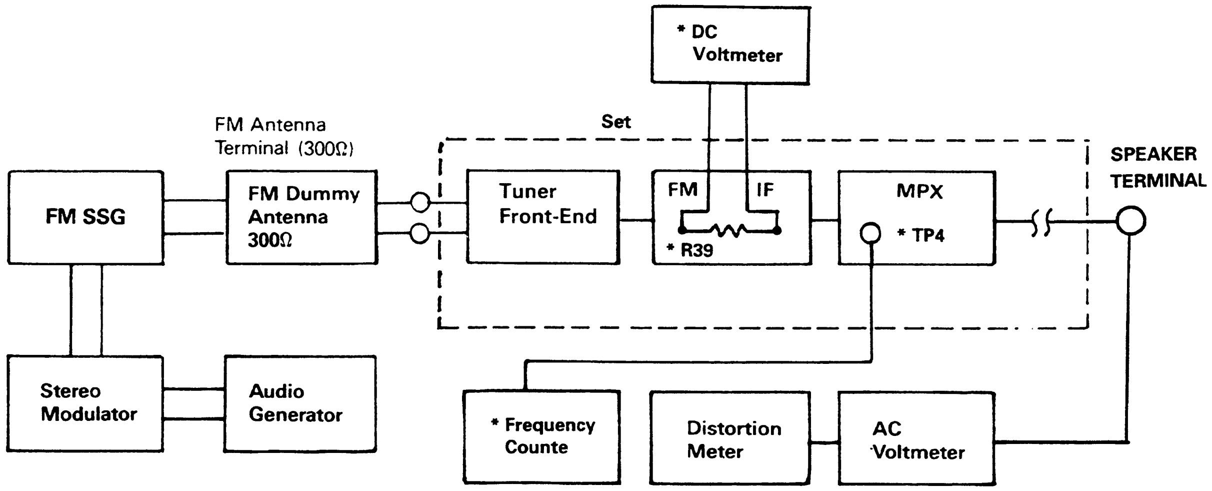

2" (60 cm)
set
AN SSG
Loop Antenna
Tuner Front-End (FE1)
AM IF
* IC1
* RDS VERSION : IC2
SPEAKER TERMINAL
AM SSG
0.01 µF
Direct Coupling
Scope
AC Volt-meter

4-2. FM Dummy Antenna


125 Ω (112.5 Ω)
Zin=50Ω (75Ω)
Z out=300 Ω (Balanced)
150 Ω

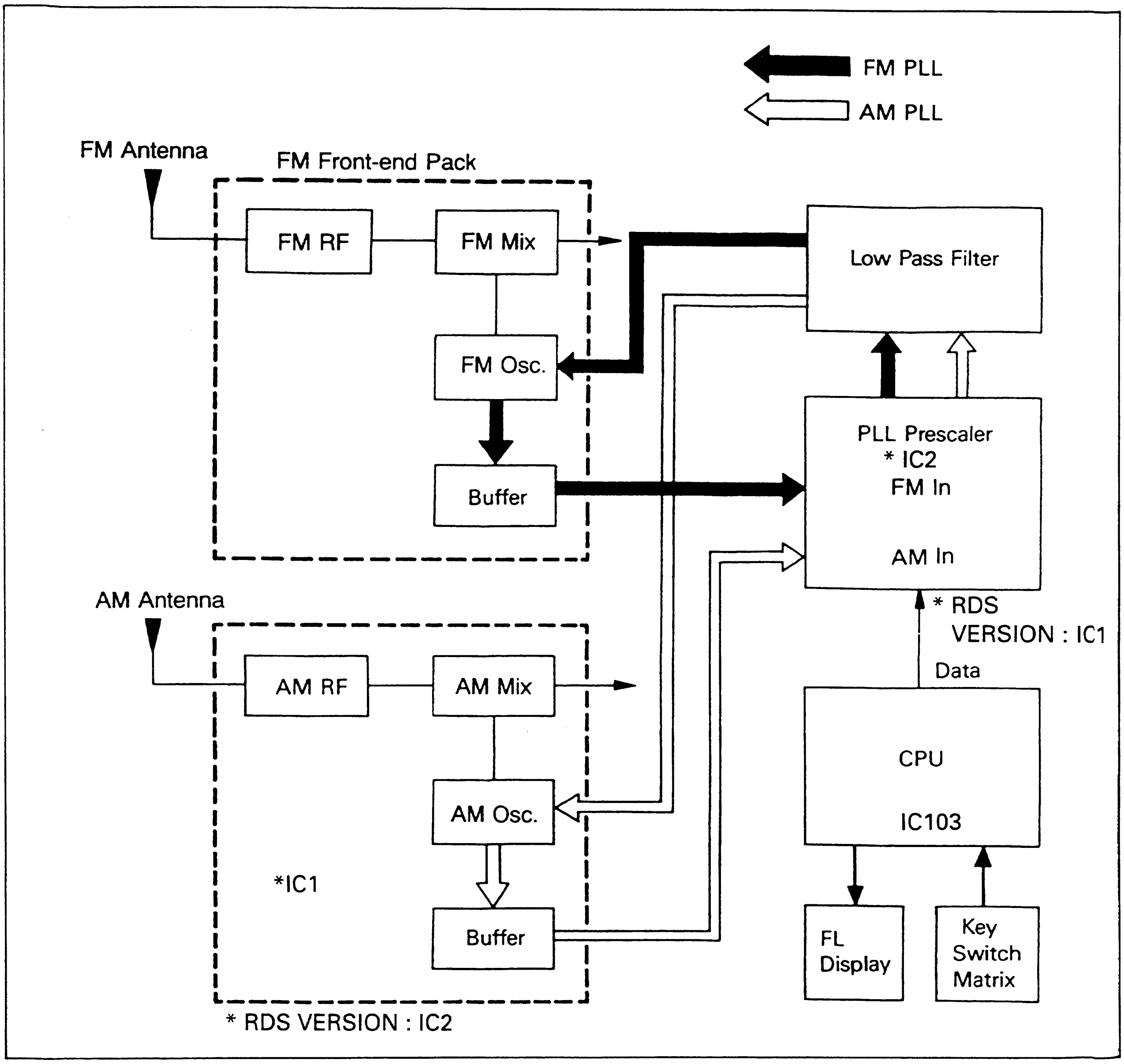
FM Dummy Antenna to 300Ω Antenna terminal of system.

4-3. FM RF/IF and MPX Alignment Connection

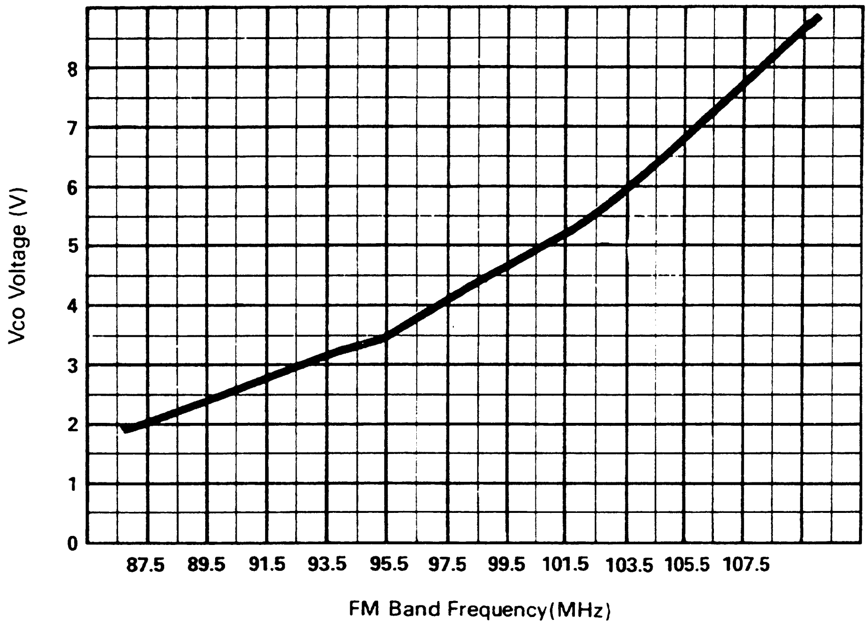

* DC Voltmeter
FM Antenna Terminal (300Ω)
Set
SPEAKER TERMINAL
FM SSG
FM Dummy Antenna 300Ω
Tuner Front-End
FM
IF
* R39
MPX
* TP4
Stereo Modulator
Audio Generator
* Frequency Counte
Distortion Meter
AC Voltmeter

* RDSVERSION ONLY

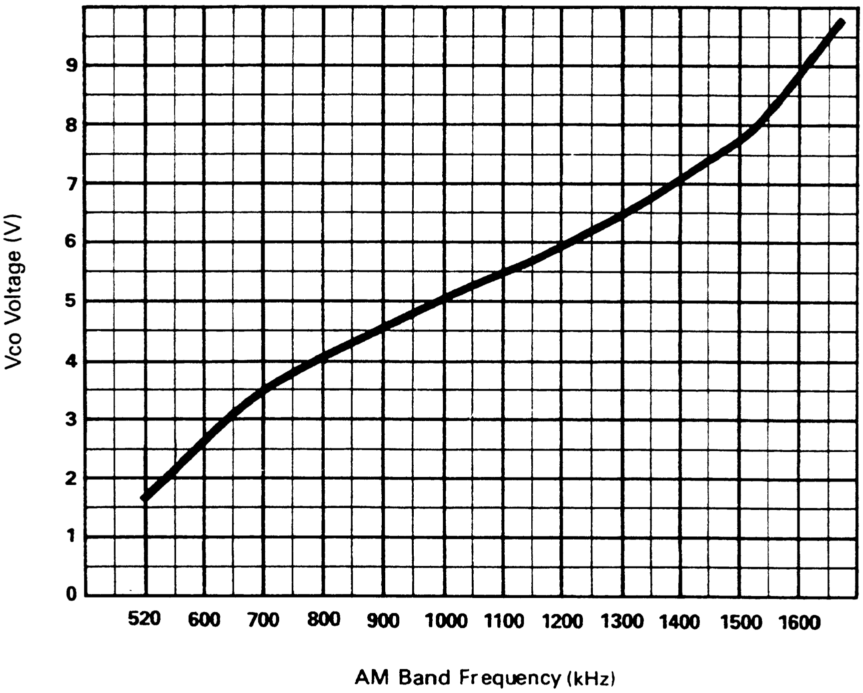
5. Digtal Tuning System Description


FM PLL
AM PLL
FM Antenna
FM Front-end Pack
FM RF
FM Mix
FM Osc.
Buffer
Low Pass Filter
PLL Prescaler
* IC2
FM In
AM In
* RDS
VERSION : IC1
Data
CPU
IC103
FL
Display
Key
Switch
Matrix
AM Antenna
AM RF
AM Mix
AM Osc.
*IC1
Buffer
* RDS VERSION : IC2

- **Vco vs. FM Band Frequency Curve**



- **Vco vs. AM Band Frequency Curve**



DECK PART

Before Measurements and Adjustments

The following general conditions apply to the electrical measurements and adjustments unless especial stated otherwise.

- Dolby NR switch off.

1. Test Tape

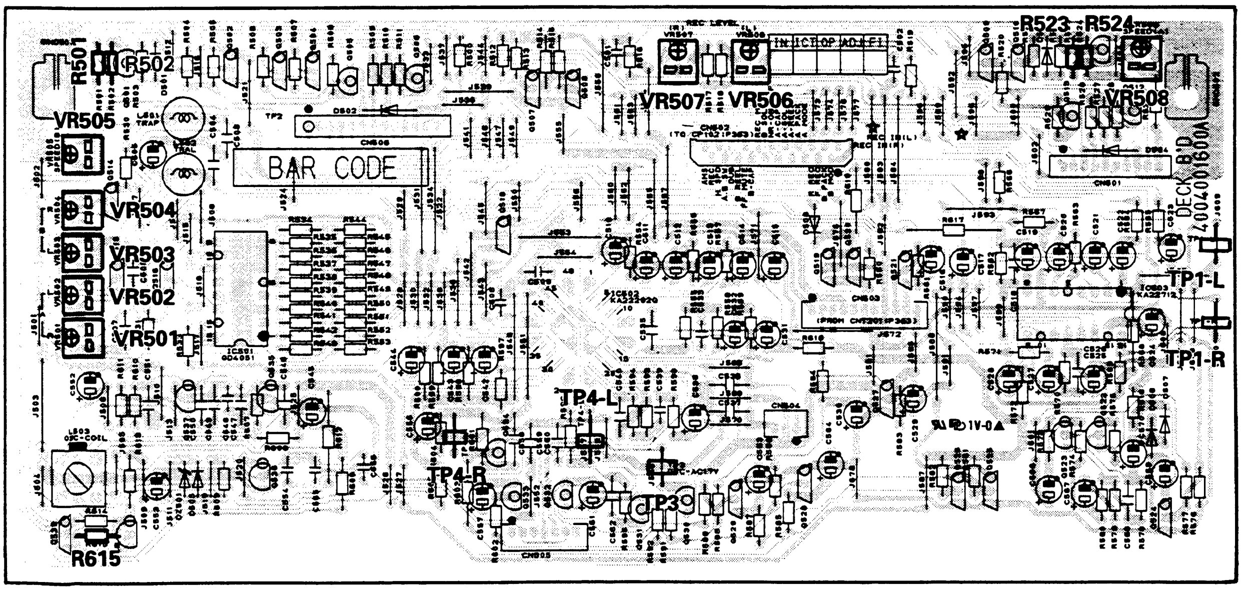
- TCC -154 Azimuth (12.5 kHz, –24 dB)
- TCC -112 Tape Speed (3 kHz, –10 dB)
- TCC -130 Playback Level (Dolby Ref. Tape, 400 Hz, 0 dB)
- TCC -185C Playback frequency response
- Reference Tape TDK, AC -224

2. Instrument required

- Audio frequency oscillator
- ACVM or dual channel, mV-meter
- Wow/Flutter meter
- Oscilloscope

3. Test Reference

Point : TP1-L/R (Dolby T/P)
Level : 245 mV (TCC-130 Play)


R501
R502
VR505
BAR CODE
VR504
VR503
VR502
VR501
R615
VR507
VR506
R523
R524
VR508
TP1-L
TP1-R
TP4-L
TP4-R
TP3
DECK B'D

4. Playback section

Adjustments	Test tape	Mode	Apply Signal to	Measure on	Read on	Adjust with	Adjust to
Head Azimuth	TCC-154 12.5 kHz (A.BEX)	FWD Play (1 & 2 Deck)		Dolby TP(TP1–L/R)	AC mV-meter Oscilloscope	Adjusting a left screw of head	Max Lissajous wave from become a straight line with an angle 45 degrees
		REW (2 Deck)				Adjusting a right screw of head	
Playback Speed at normal	TCC-112 3 kHz -10 dB (A.Bex)	Play (1.& 2 Deck) TP2 : GND			Wow and Flutter Meter	1 Deck : VR508 2 Deck : VR505	3000 Hz±30 Hz
Playback at high-speed	TCC-112 3kHz -10dB (A. Bex)					1(R523, R524) 2(R501, R502)	4400 Hz±45 Hz
Playback Level	TCC-130 400 Hz, 0 dB (A. Bex)				AC mV-meter	1 Deck : VR501, VR502	245 mV (Dolby TP)
						2 Deck : VR503, VR504	
Playback frequency response	TCC-185C 12.5 kHz, 1 kHz, 60 Hz (A.Bex)				AC mV-meter		See graph Figure 9 freq. response

5. Recording section

Adjustments	Test tape	Mode	Apply Signal to	Measure on	Read on	Adjust with	Adjust to
Bias OSC Frequency	AC-224 (TDK)	Rec/Pause	400 Hz 400 mV Video	TP3	Frequency Counter	R615	105KHZ±400HZ
Target value Bias	AC-224 (TDK)	Rec/Pause		TP3	AC mV-meter	R615	AC 175V±1V
Recording Level	AC-224 (TDK)	Rec/Pause		TP4-L/R		VR506, VR507	AC 320mV

Note :

*a. Prior to any measurement or adjstment with the tape running, heads and tape guides should be degaussed and cleaned. Reference below the figuer.

*b. The maximum permissible speed variation ±1.0%. Moerover the Wow and Flutter can be read. This value on line out be exceed 0.2%

*c. The voltage on line out shoule be 400mV ±20mV. If not, it reduce the LF signal (bias disabled) as many as the reading was too low or too high by VR503/504, VR501/502.

*d. When the channel is adjsted, this may slightly affect the adjutment of the other channel. If the adjustment is correct, the frequency response curve will be similar to curve b in figuer 1, distortion beiow 3%.

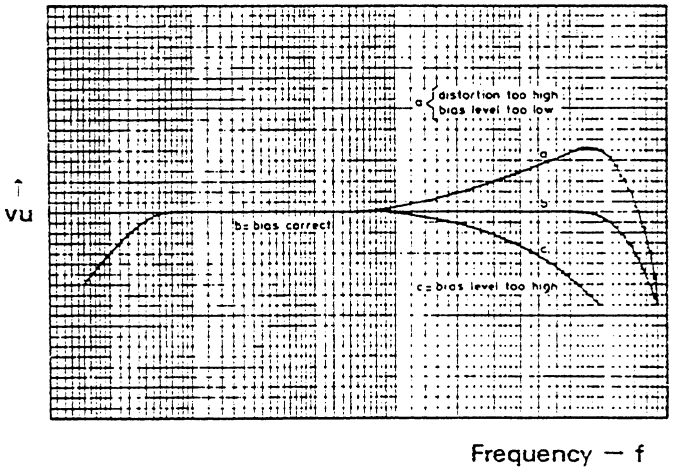
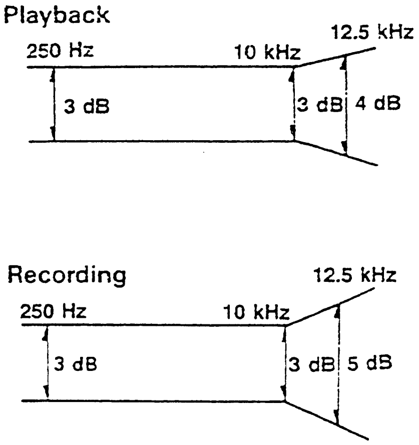


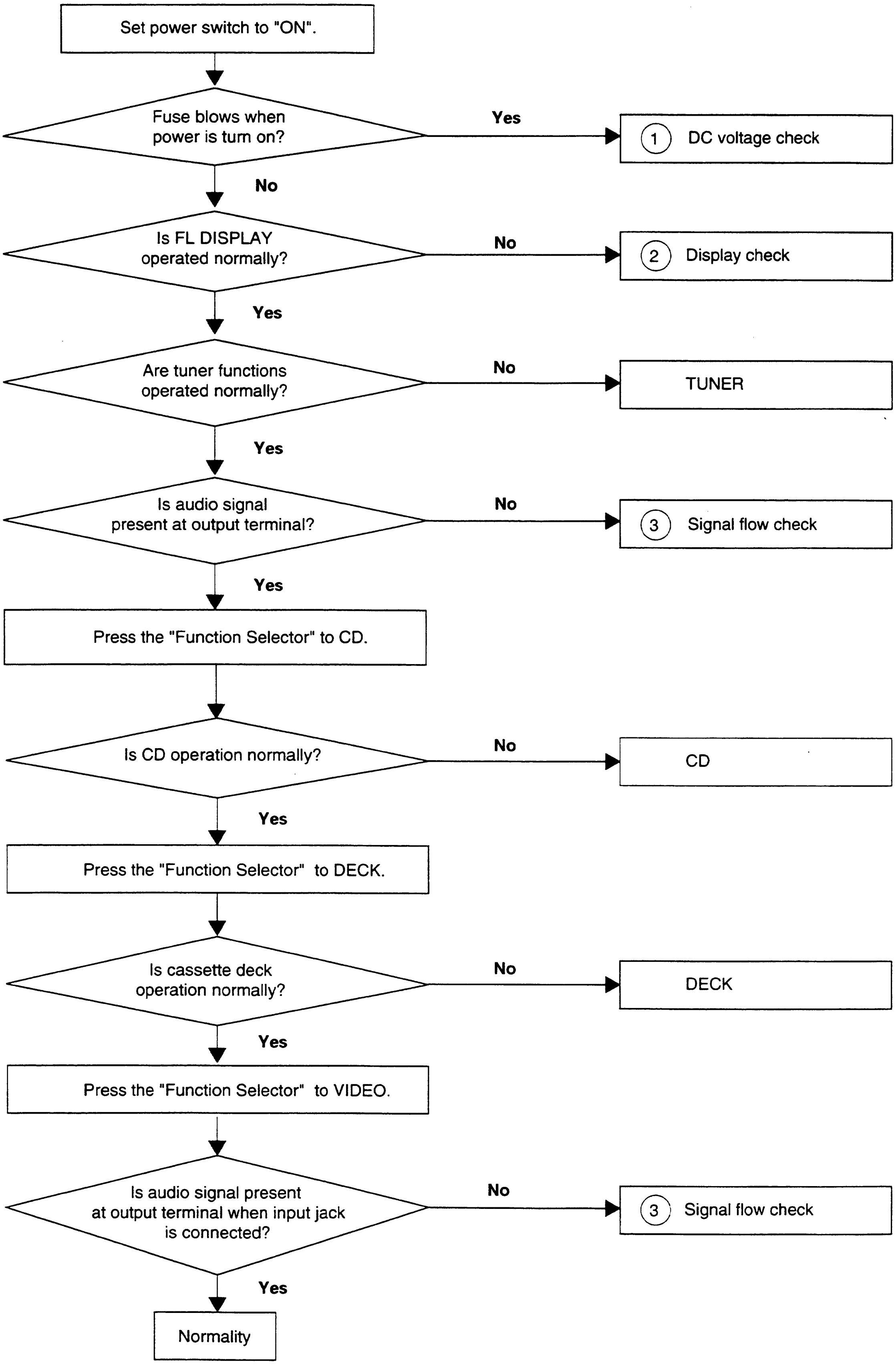
Figure 8

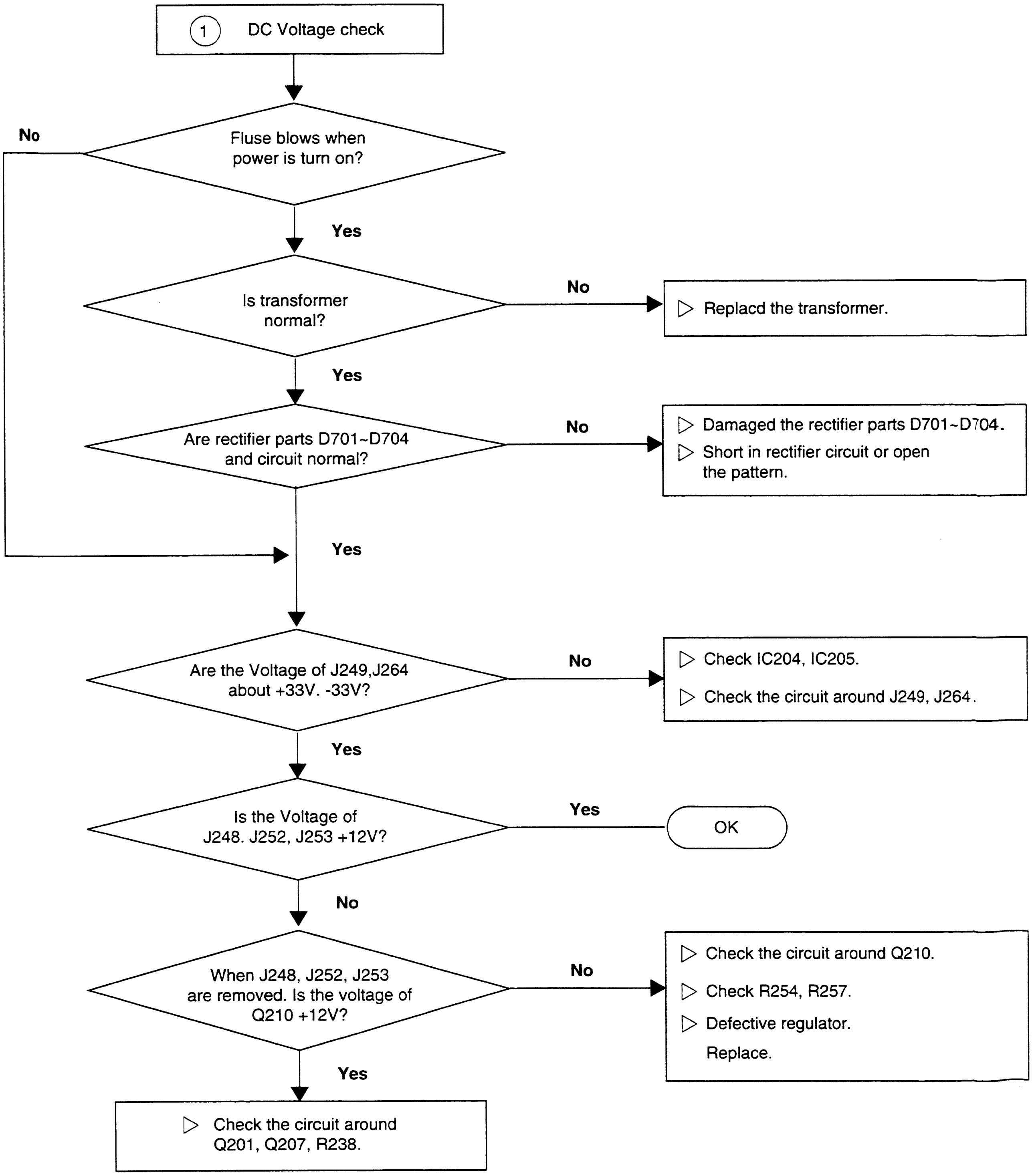

Playback
250 Hz
10 kHz
12.5 kHz
3 dB
3 dB
4 dB
Recording
250 Hz
10 kHz
12.5 kHz
3 dB
3 dB
5 dB

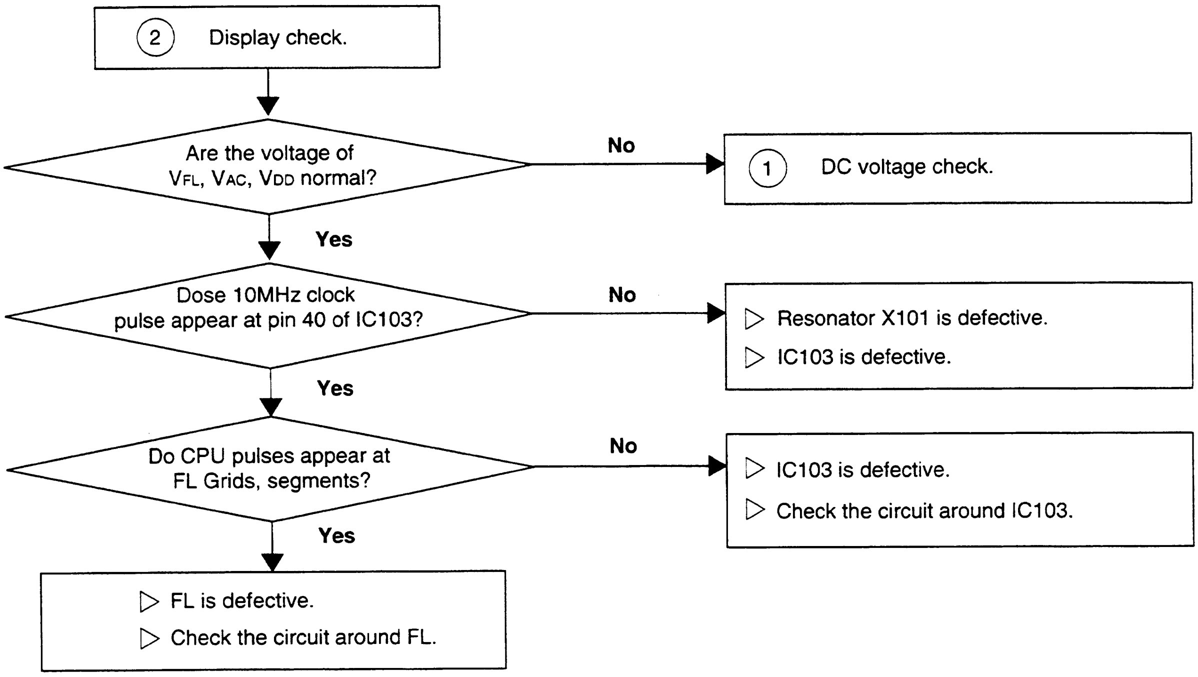
Allowable Playback/Recording Frequency Response Zone

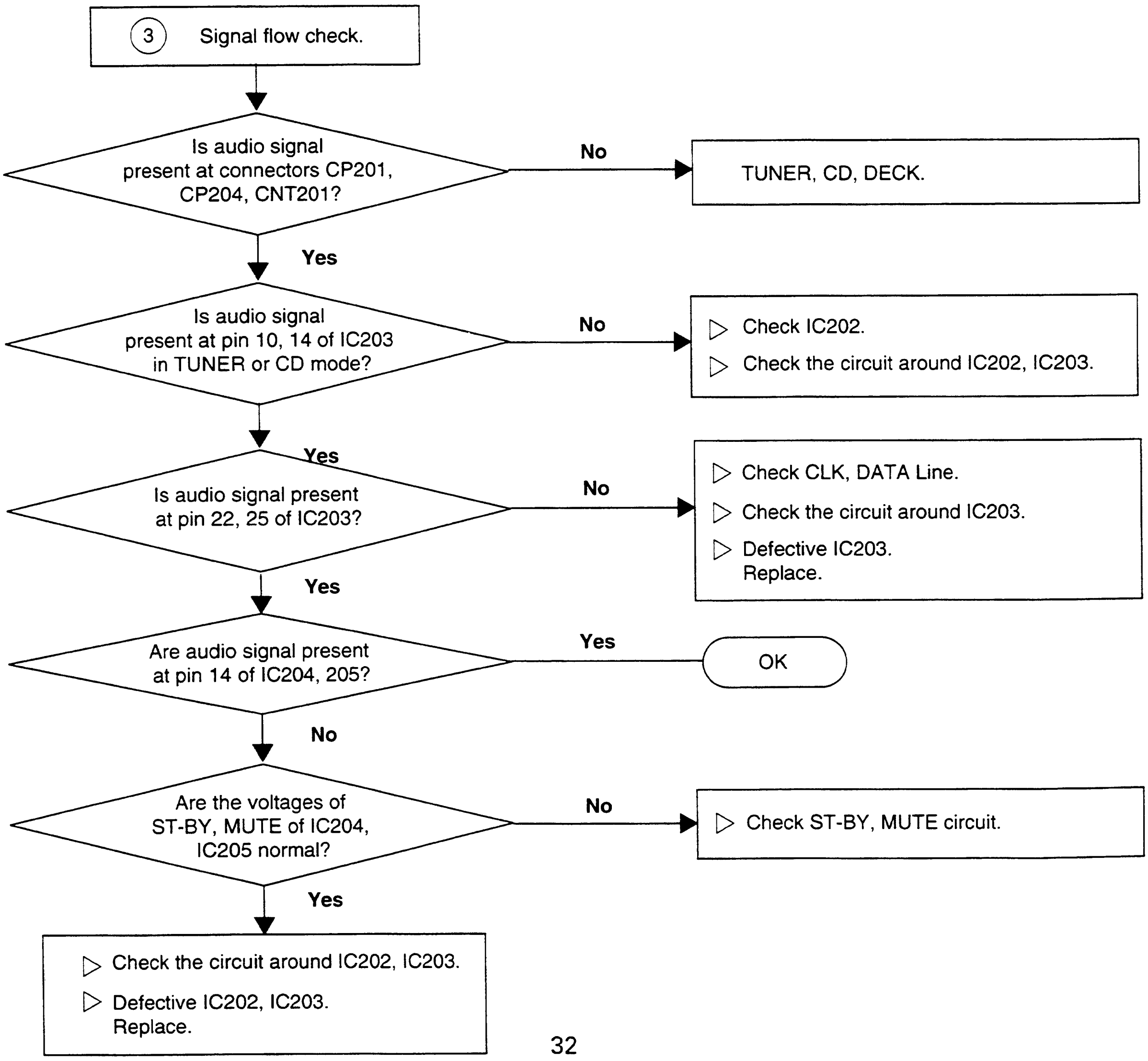
Figure 9

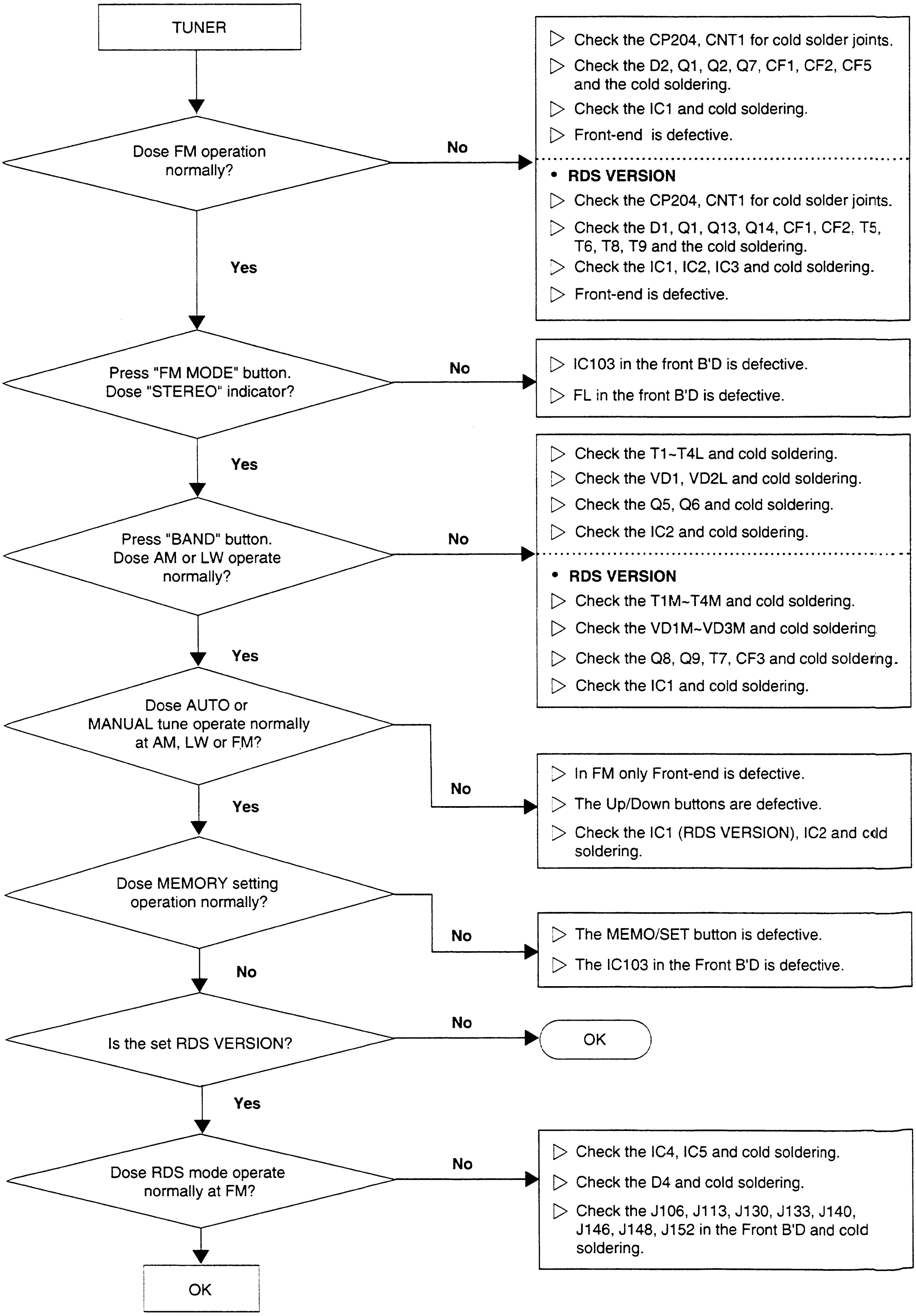
TROUBLESHOOTING


Set power switch to "ON".
Fuse blows when power is turn on?
Yes
① DC voltage check
No
Is FL DISPLAY operated normally?
No
② Display check
Yes
Are tuner functions operated normally?
No
TUNER
Yes
Is audio signal present at output terminal?
No
③ Signal flow check
Yes
Press the "Function Selector" to CD.
Is CD operation normally?
No
CD
Yes
Press the "Function Selector" to DECK.
Is cassette deck operation normally?
No
DECK
Yes
Press the "Function Selector" to VIDEO.
Is audio signal present at output terminal when input jack is connected?
No
③ Signal flow check
Yes
Normality


1
DC Voltage check
Fluse blows when power is turn on?
No
Yes
Is transformer normal?
No
▷ Replacd the transformer.
Yes
Are rectifier parts D701~D704 and circuit normal?
No
▷ Damaged the rectifier parts D701~D704.
▷ Short in rectifier circuit or open the pattern.
Yes
Are the Voltage of J249,J264 about +33V. -33V?
No
▷ Check IC204, IC205.
▷ Check the circuit around J249, J264.
Yes
Is the Voltage of J248. J252, J253 +12V?
Yes
OK
No
When J248, J252, J253 are removed. Is the voltage of Q210 +12V?
No
▷ Check the circuit around Q210.
▷ Check R254, R257.
▷ Defective regulator. Replace.
Yes
▷ Check the circuit around Q201, Q207, R238.


② Display check.
Are the voltage of VFL, VAC, VDD normal?
No
① DC voltage check.
Yes
Dose 10MHz clock pulse appear at pin 40 of IC103?
No
▷ Resonator X101 is defective.
▷ IC103 is defective.
Yes
Do CPU pulses appear at FL Grids, segments?
No
▷ IC103 is defective.
▷ Check the circuit around IC103.
Yes
▷ FL is defective.
▷ Check the circuit around FL.


③ Signal flow check.
Is audio signal present at connectors CP201, CP204, CNT201?
No
TUNER, CD, DECK.
Yes
Is audio signal present at pin 10, 14 of IC203 in TUNER or CD mode?
No
▷ Check IC202.
▷ Check the circuit around IC202, IC203.
Yes
Is audio signal present at pin 22, 25 of IC203?
No
▷ Check CLK, DATA Line.
▷ Check the circuit around IC203.
▷ Defective IC203. Replace.
Yes
Are audio signal present at pin 14 of IC204, 205?
Yes
OK
No
Are the voltages of ST-BY, MUTE of IC204, IC205 normal?
No
▷ Check ST-BY, MUTE circuit.
Yes
▷ Check the circuit around IC202, IC203.
▷ Defective IC202, IC203. Replace.


TUNER
Dose FM operation normally?
No
Yes
Press "FM MODE" button. Dose "STEREO" indicator?
No
Yes
Press "BAND" button. Dose AM or LW operate normally?
No
Yes
Dose AUTO or MANUAL tune operate normally at AM, LW or FM?
No
Yes
Dose MEMORY setting operation normally?
No
No
Is the set RDS VERSION?
No
OK
Yes
Dose RDS mode operate normally at FM?
No
OK

- ▷ Check the CP204, CNT1 for cold solder joints.
- ▷ Check the D2, Q1, Q2, Q7, CF1, CF2, CF5 and the cold soldering.
- ▷ Check the IC1 and cold soldering.
- ▷ Front-end is defective.

• RDS VERSION

- ▷ Check the CP204, CNT1 for cold solder joints.
- ▷ Check the D1, Q1, Q13, Q14, CF1, CF2, T5, T6, T8, T9 and the cold soldering.
- ▷ Check the IC1, IC2, IC3 and cold soldering.
- ▷ Front-end is defective.

- ▷ IC103 in the front B'D is defective.
- ▷ FL in the front B'D is defective.

- ▷ Check the T1~T4L and cold soldering.
- ▷ Check the VD1, VD2L and cold soldering.
- ▷ Check the Q5, Q6 and cold soldering.
- ▷ Check the IC2 and cold soldering.

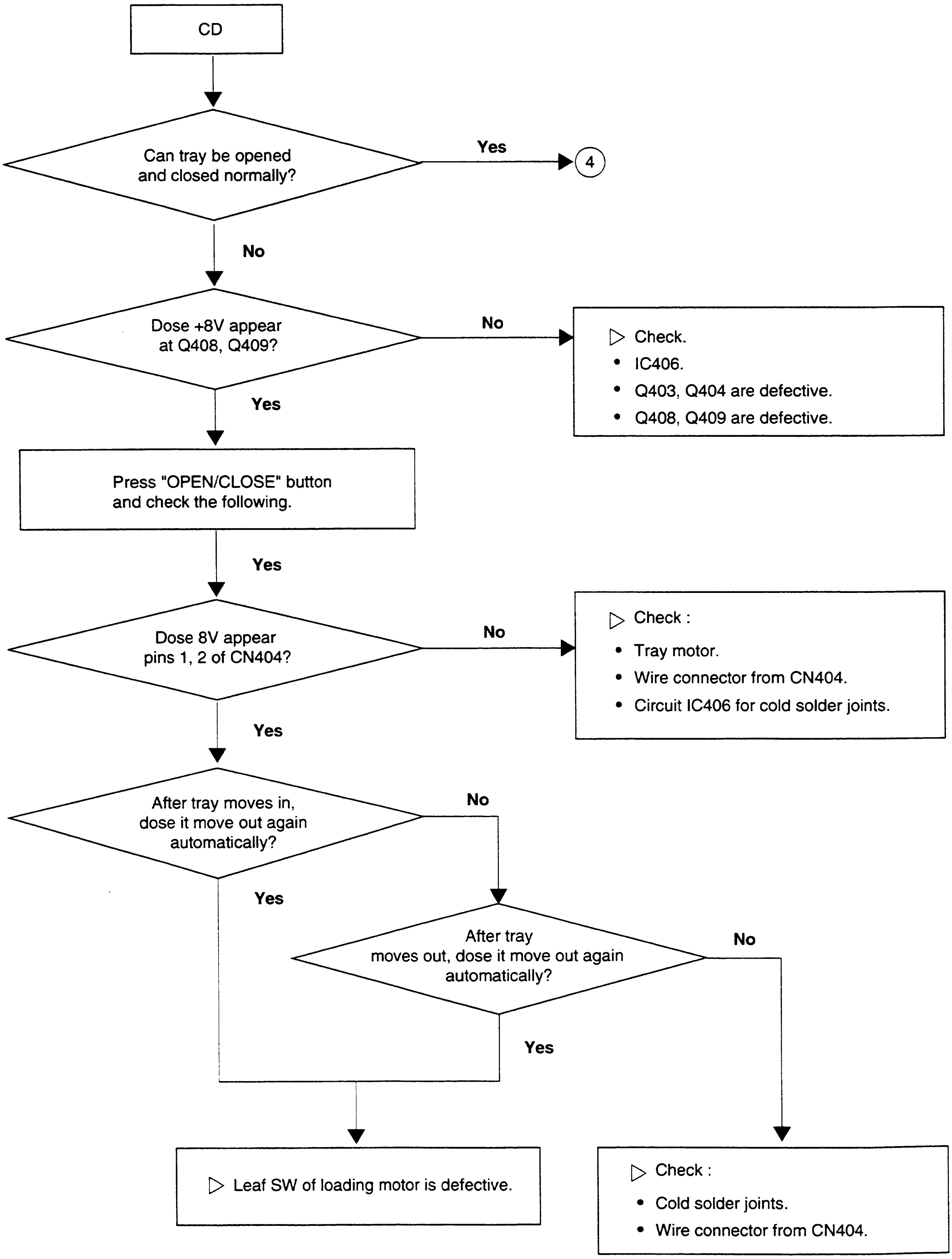
• RDS VERSION

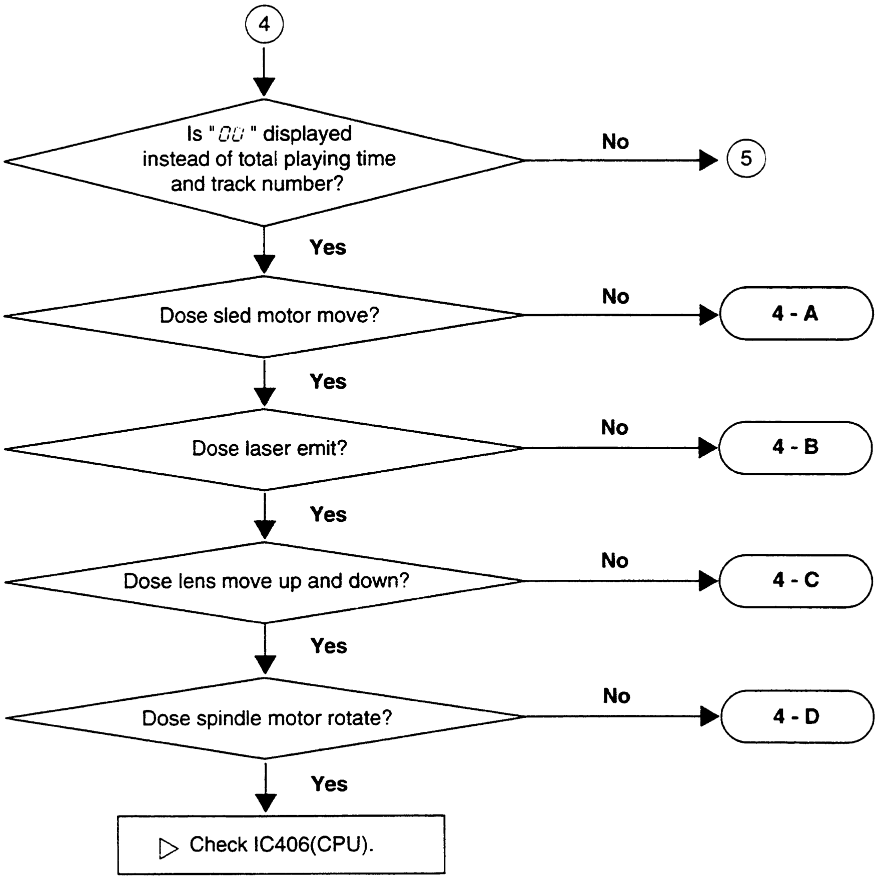
- ▷ Check the T1M~T4M and cold soldering.
- ▷ Check the VD1M~VD3M and cold soldering.
- ▷ Check the Q8, Q9, T7, CF3 and cold soldering.
- ▷ Check the IC1 and cold soldering.

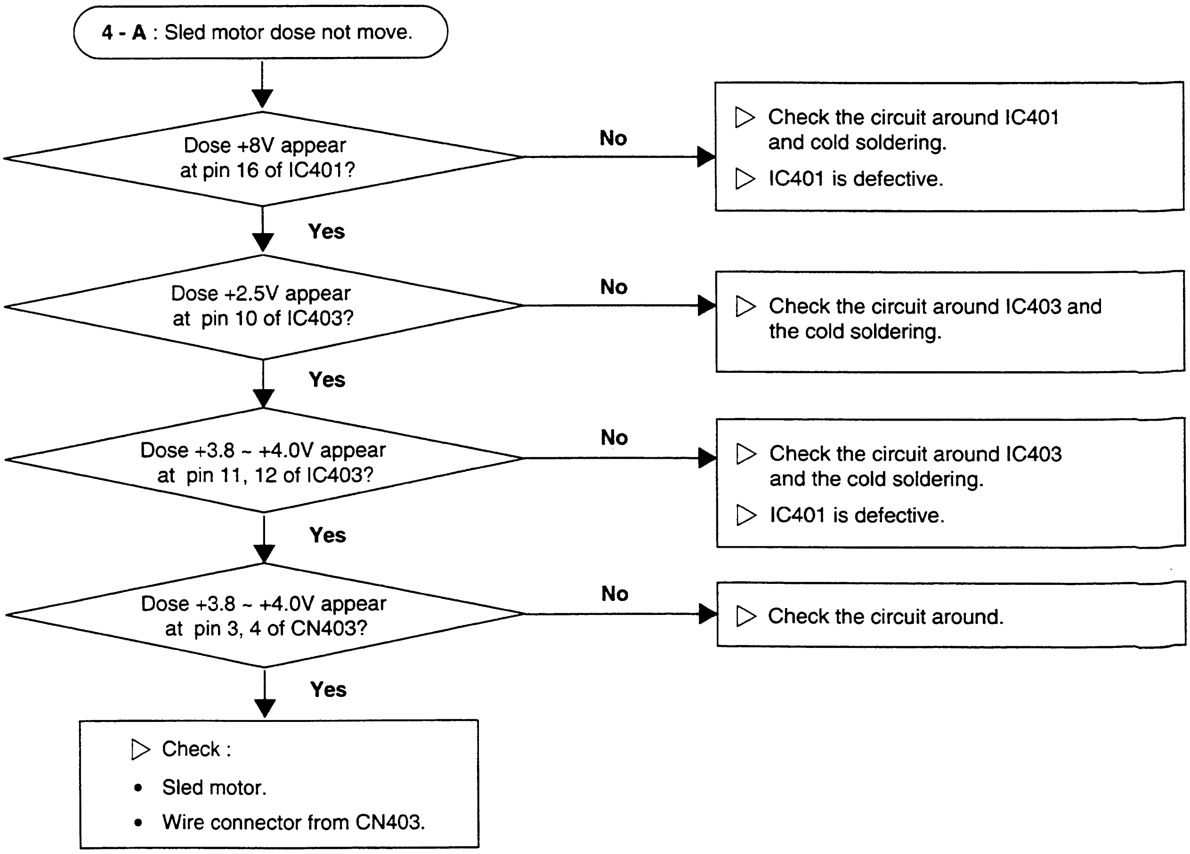
- ▷ In FM only Front-end is defective.
- ▷ The Up/Down buttons are defective.
- ▷ Check the IC1 (RDS VERSION), IC2 and cold soldering.

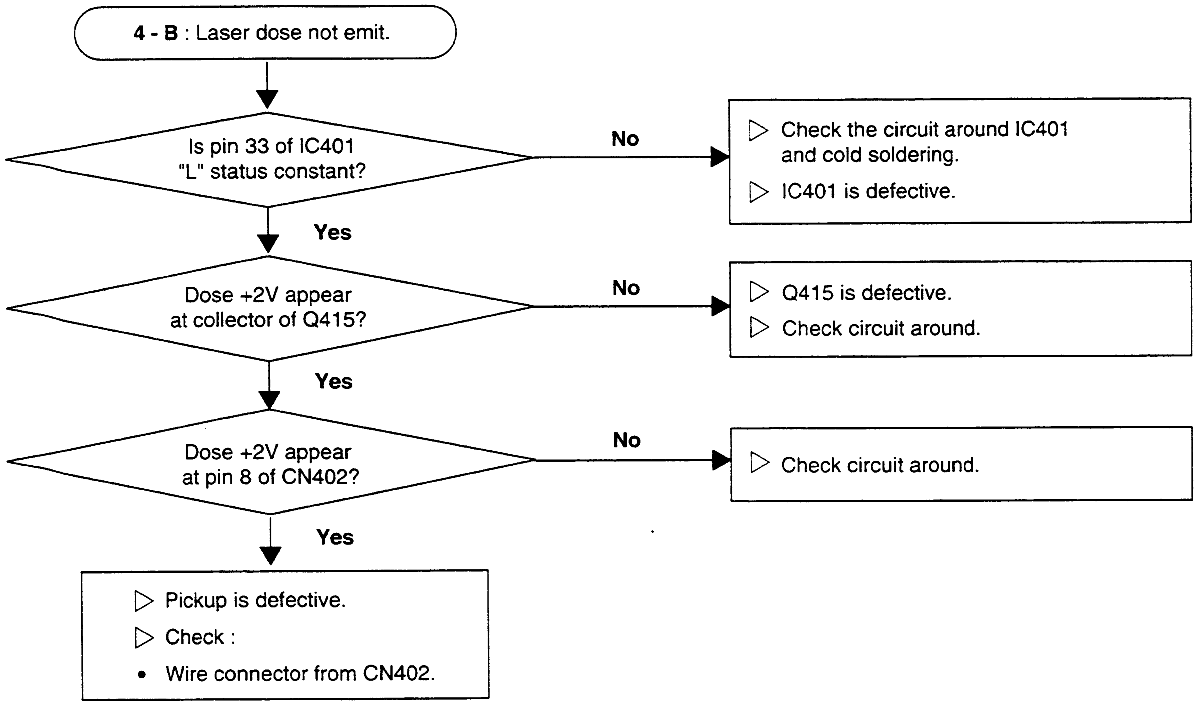
- ▷ The MEMO/SET button is defective.
- ▷ The IC103 in the Front B'D is defective.

- ▷ Check the IC4, IC5 and cold soldering.
- ▷ Check the D4 and cold soldering.
- ▷ Check the J106, J113, J130, J133, J140, J146, J148, J152 in the Front B'D and cold soldering.


CD
Can tray be opened and closed normally?
Yes
4
No
Dose +8V appear at Q408, Q409?
No
▷ Check.
• IC406.
• Q403, Q404 are defective.
• Q408, Q409 are defective.
Yes
Press "OPEN/CLOSE" button and check the following.
Yes
Dose 8V appear pins 1, 2 of CN404?
No
▷ Check :
• Tray motor.
• Wire connector from CN404.
• Circuit IC406 for cold solder joints.
Yes
After tray moves in, dose it move out again automatically?
No
Yes
After tray moves out, dose it move out again automatically?
No
Yes
▷ Leaf SW of loading motor is defective.
▷ Check :
• Cold solder joints.
• Wire connector from CN404.


4
Is "00" displayed instead of total playing time and track number?
No
5
Yes
Dose sled motor move?
No
4 - A
Yes
Dose laser emit?
No
4 - B
Yes
Dose lens move up and down?
No
4 - C
Yes
Dose spindle motor rotate?
No
4 - D
Yes
▷ Check IC406(CPU).


4 - A : Sled motor dose not move.
Dose +8V appear at pin 16 of IC401?
No
▷ Check the circuit around IC401 and cold soldering.
▷ IC401 is defective.
Yes
Dose +2.5V appear at pin 10 of IC403?
No
▷ Check the circuit around IC403 and the cold soldering.
Yes
Dose +3.8 ~ +4.0V appear at pin 11, 12 of IC403?
No
▷ Check the circuit around IC403 and the cold soldering.
▷ IC401 is defective.
Yes
Dose +3.8 ~ +4.0V appear at pin 3, 4 of CN403?
No
▷ Check the circuit around.
Yes
▷ Check :
• Sled motor.
• Wire connector from CN403.


4 - B : Laser dose not emit.
Is pin 33 of IC401 "L" status constant?
No
▷ Check the circuit around IC401 and cold soldering.
▷ IC401 is defective.
Yes
Dose +2V appear at collector of Q415?
No
▷ Q415 is defective.
▷ Check circuit around.
Yes
Dose +2V appear at pin 8 of CN402?
No
▷ Check circuit around.
Yes
▷ Pickup is defective.
▷ Check :
• Wire connector from CN402.

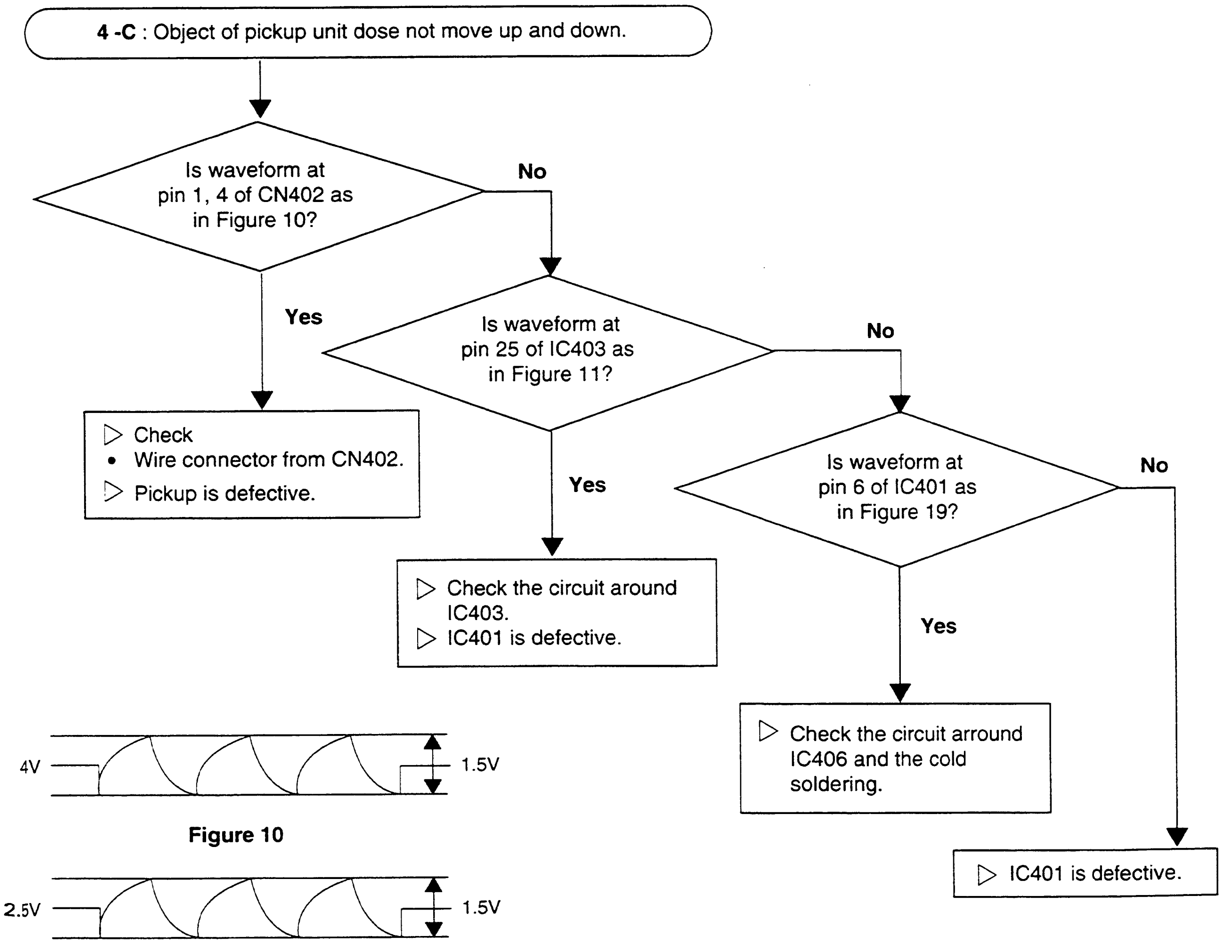

4 -C : Object of pickup unit dose not move up and down.
Is waveform at pin 1, 4 of CN402 as in Figure 10?
No
Yes
▷ Check
• Wire connector from CN402.
▷ Pickup is defective.
Is waveform at pin 25 of IC403 as in Figure 11?
No
Yes
▷ Check the circuit around IC403.
▷ IC401 is defective.
Is waveform at pin 6 of IC401 as in Figure 19?
No
Yes
▷ Check the circuit arround IC406 and the cold soldering.
▷ IC401 is defective.
4V
1.5V
2.5V
1.5V

Figure 10

Figure 11

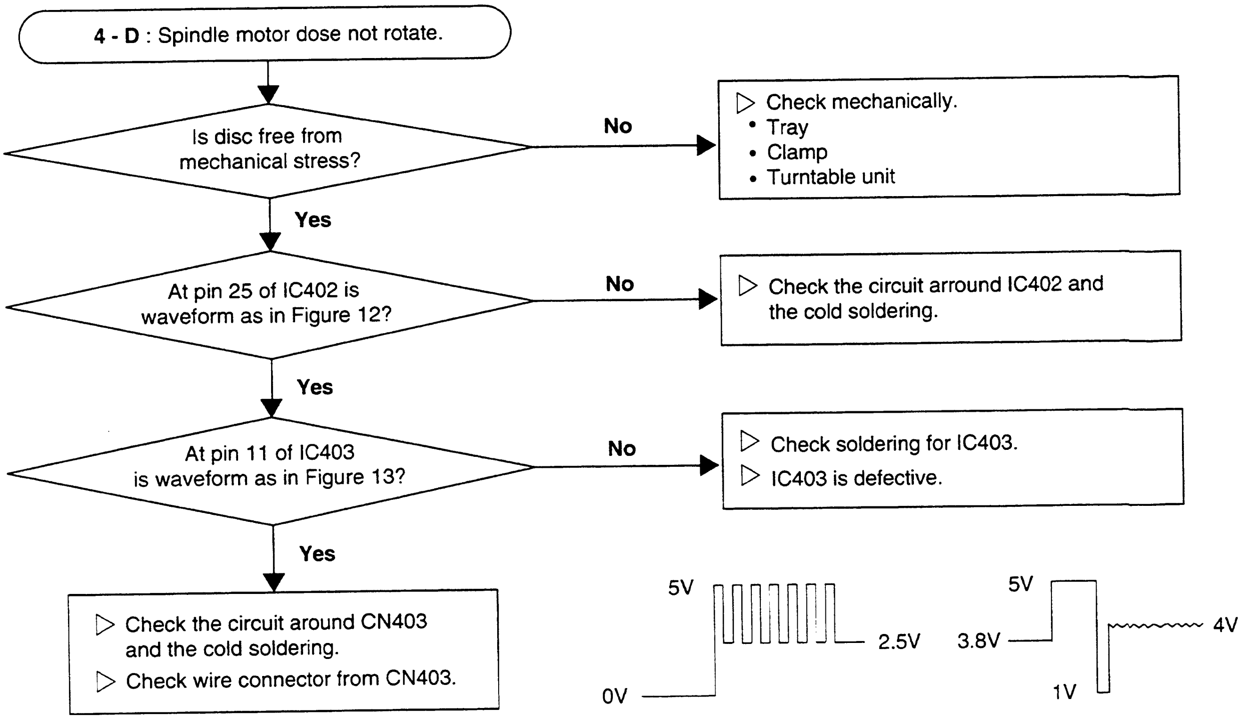

4 - D : Spindle motor dose not rotate.
Is disc free from mechanical stress?
No
▷ Check mechanically.
• Tray
• Clamp
• Turntable unit
Yes
At pin 25 of IC402 is waveform as in Figure 12?
No
▷ Check the circuit arround IC402 and the cold soldering.
Yes
At pin 11 of IC403 is waveform as in Figure 13?
No
▷ Check soldering for IC403.
▷ IC403 is defective.
Yes
▷ Check the circuit around CN403 and the cold soldering.
▷ Check wire connector from CN403.
5V
2.5V
0V
5V
3.8V
4V
1V

Figure 12

Figure 13

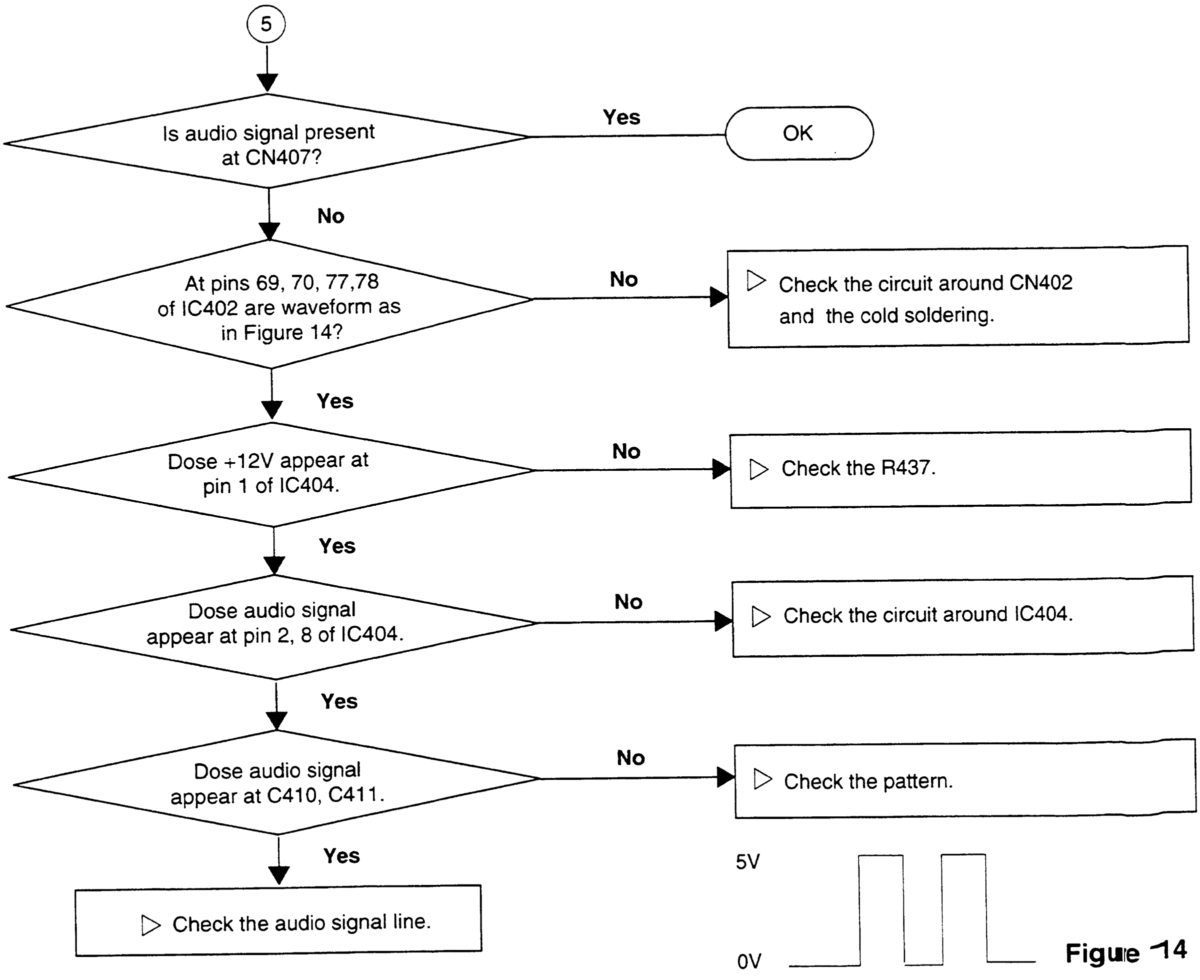
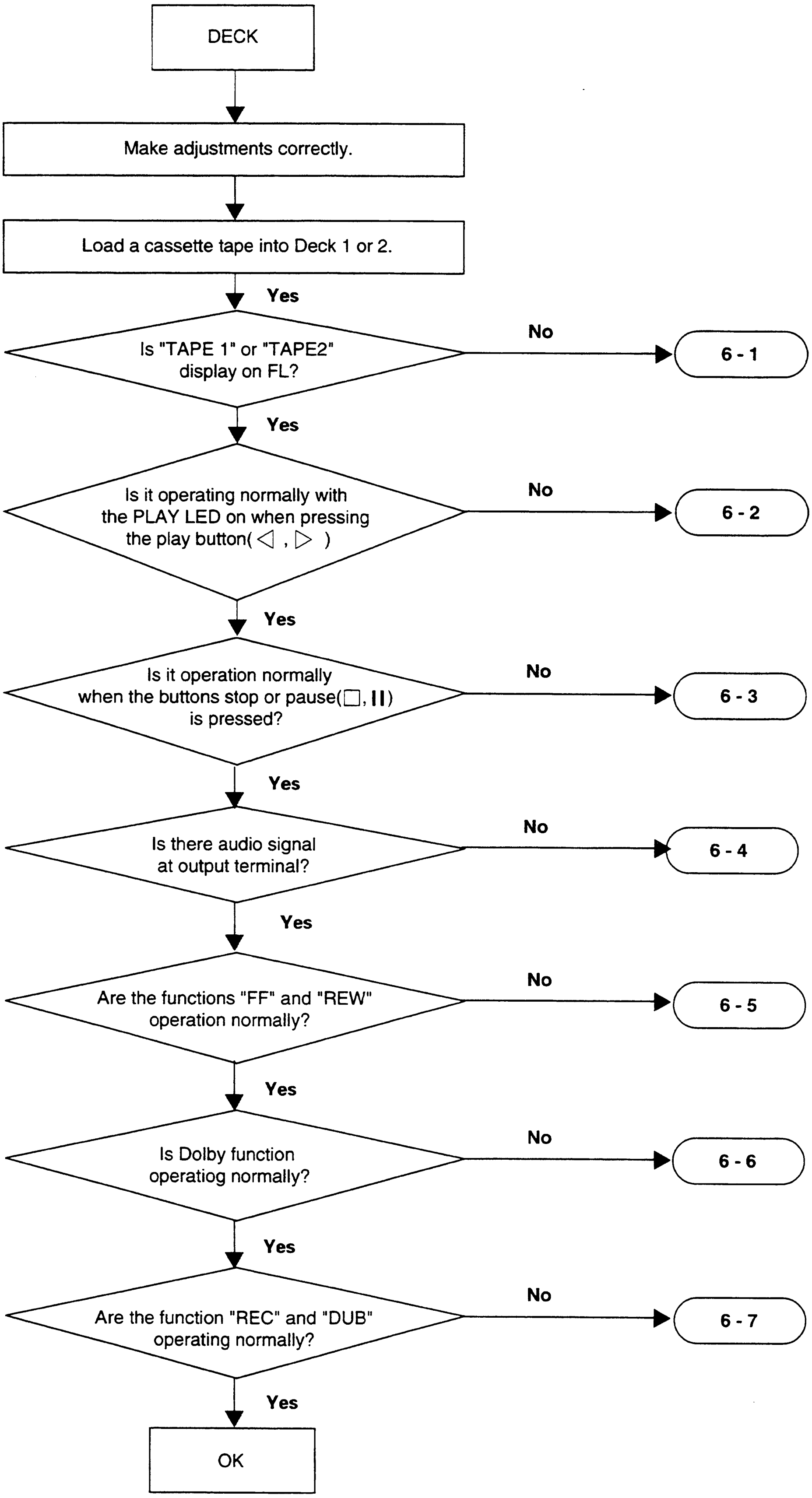
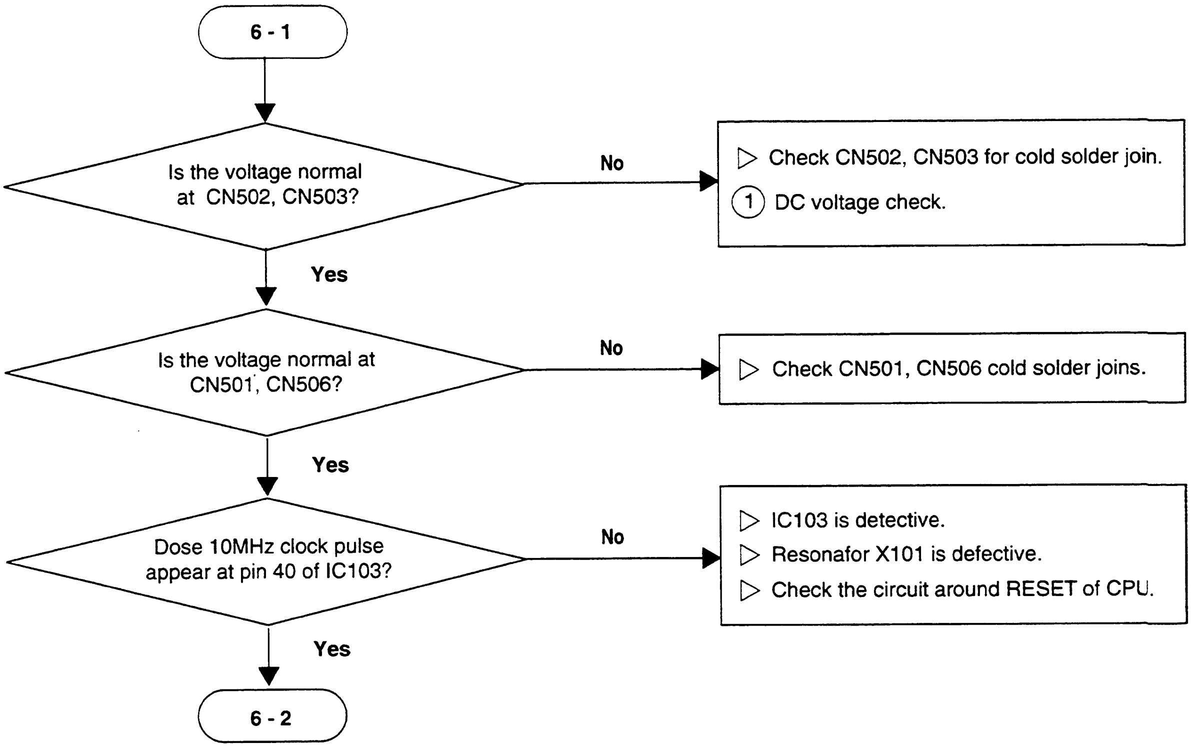

5
Is audio signal present at CN407?
Yes
OK
No
At pins 69, 70, 77,78 of IC402 are waveform as in Figure 14?
No
▷ Check the circuit around CN402 and the cold soldering.
Yes
Dose +12V appear at pin 1 of IC404.
No
▷ Check the R437.
Yes
Dose audio signal appear at pin 2, 8 of IC404.
No
▷ Check the circuit around IC404.
Yes
Dose audio signal appear at C410, C411.
No
▷ Check the pattern.
Yes
▷ Check the audio signal line.
5V
0V

Figure 14


DECK
Make adjustments correctly.
Load a cassette tape into Deck 1 or 2.
Yes
Is "TAPE 1" or "TAPE2" display on FL?
No
6 - 1
Yes
Is it operating normally with the PLAY LED on when pressing the play button(◁ , ▷)
No
6 - 2
Yes
Is it operation normally when the buttons stop or pause(□, II) is pressed?
No
6 - 3
Yes
Is there audio signal at output terminal?
No
6 - 4
Yes
Are the functions "FF" and "REW" operation normally?
No
6 - 5
Yes
Is Dolby function operatiog normally?
No
6 - 6
Yes
Are the function "REC" and "DUB" operating normally?
No
6 - 7
Yes
OK



Is the voltage normal at CN502, CN503?

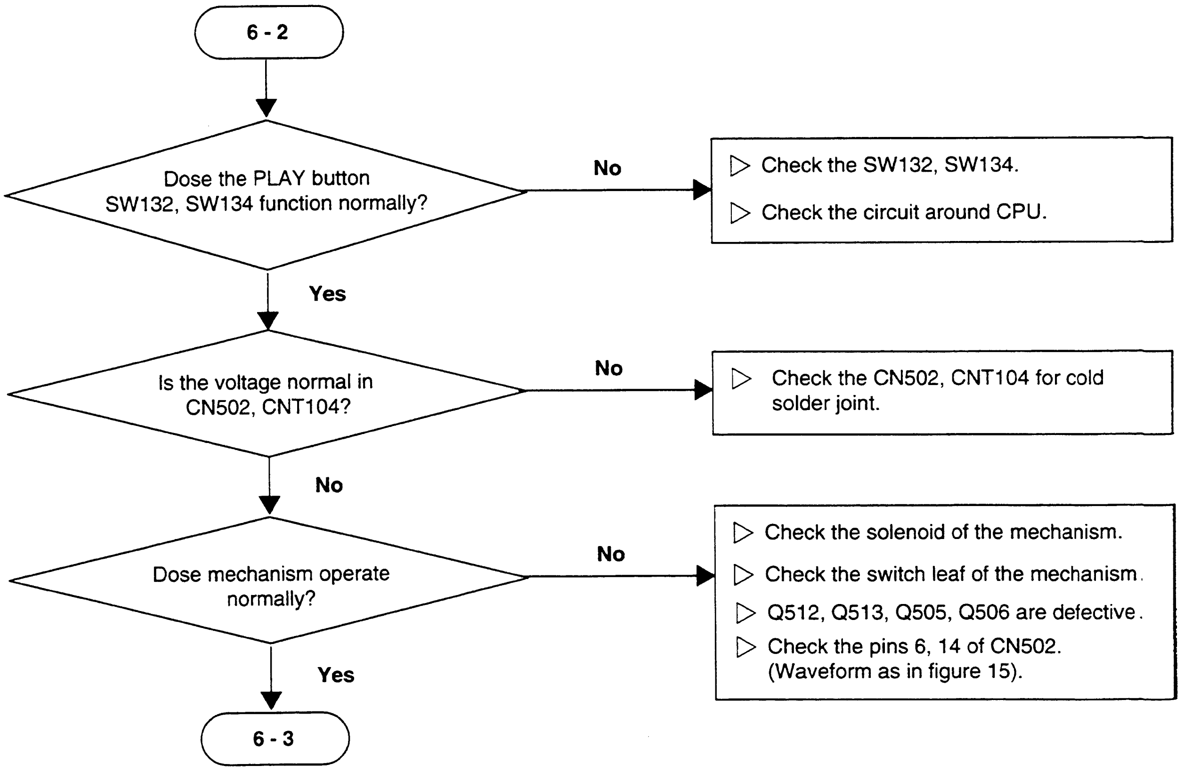
- ▷ Check CN502, CN503 for cold solder join.
- ① DC voltage check.

Is the voltage normal at CN501, CN506?

- ▷ Check CN501, CN506 cold solder joins.

Dose 10MHz clock pulse appear at pin 40 of IC103?

- ▷ IC103 is detective.
- ▷ Resonafor X101 is defective.
- ▷ Check the circuit around RESET of CPU.



Dose the PLAY button SW132, SW134 function normally?

- ▷ Check the SW132, SW134.
- ▷ Check the circuit around CPU.

Is the voltage normal in CN502, CNT104?

- ▷ Check the CN502, CNT104 for cold solder joint.

Dose mechanism operate normally?

- ▷ Check the solenoid of the mechanism.
- ▷ Check the switch leaf of the mechanism.
- ▷ Q512, Q513, Q505, Q506 are defective.
- ▷ Check the pins 6, 14 of CN502. (Waveform as in figure 15).

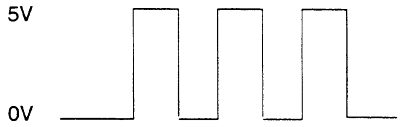
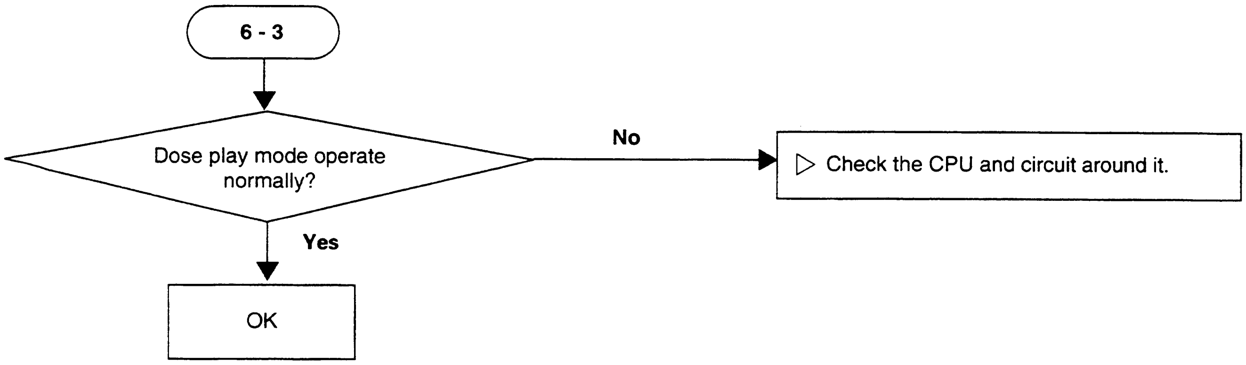
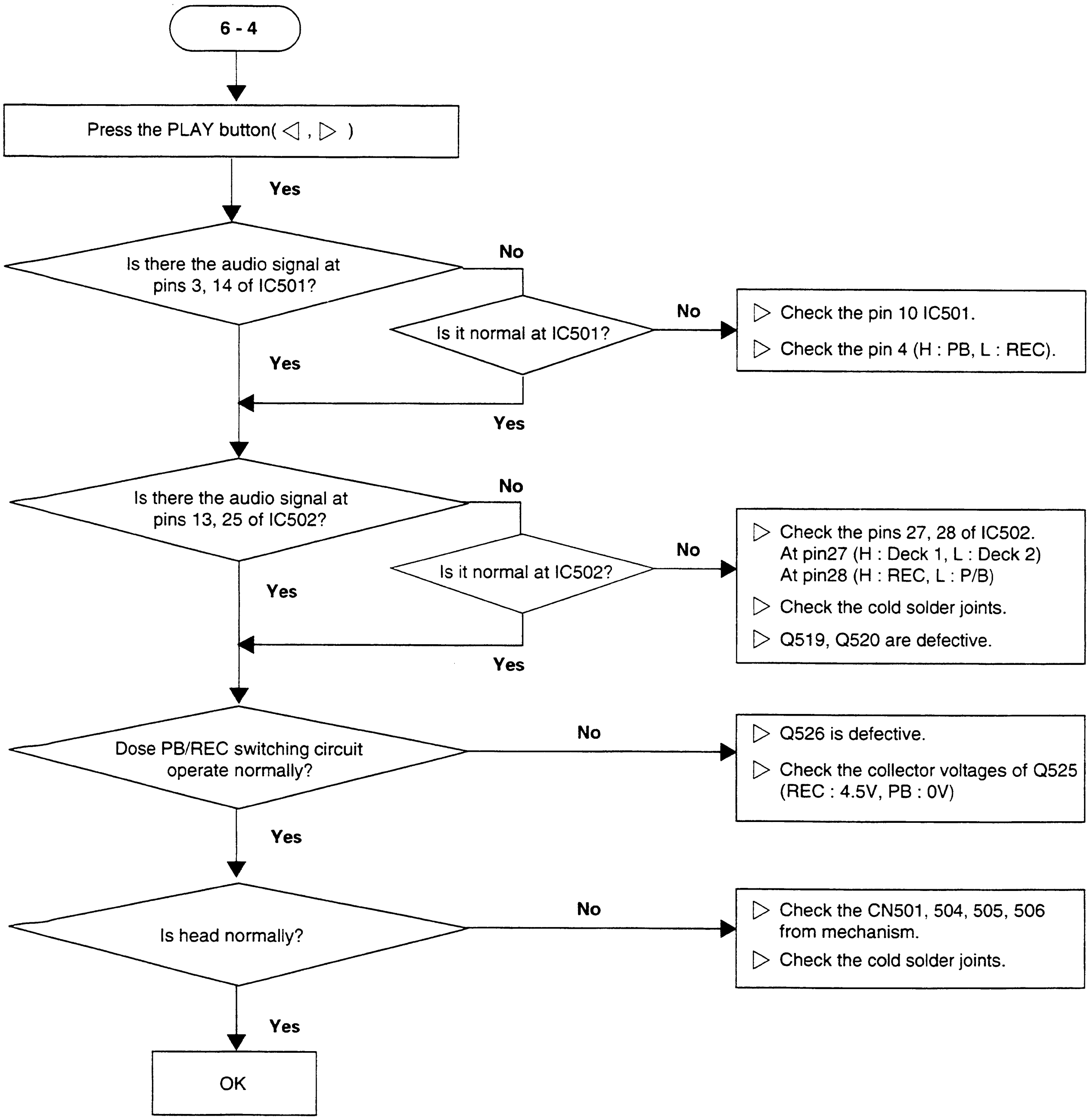
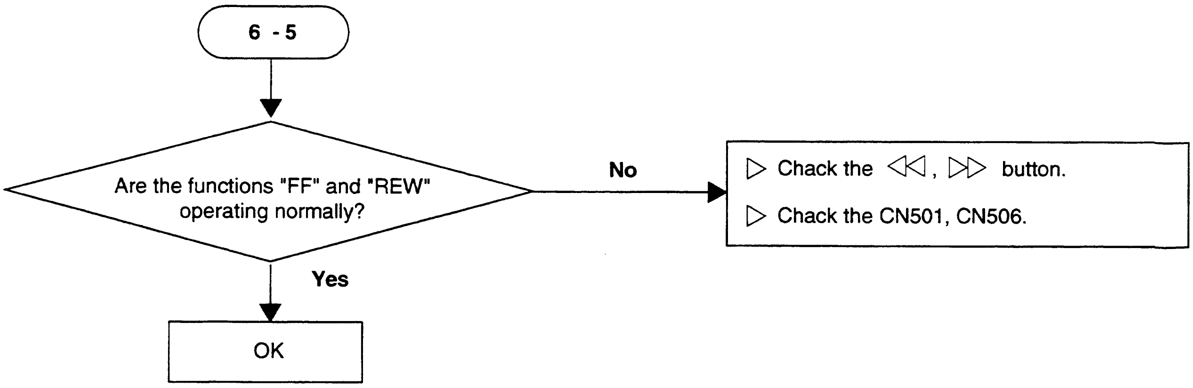
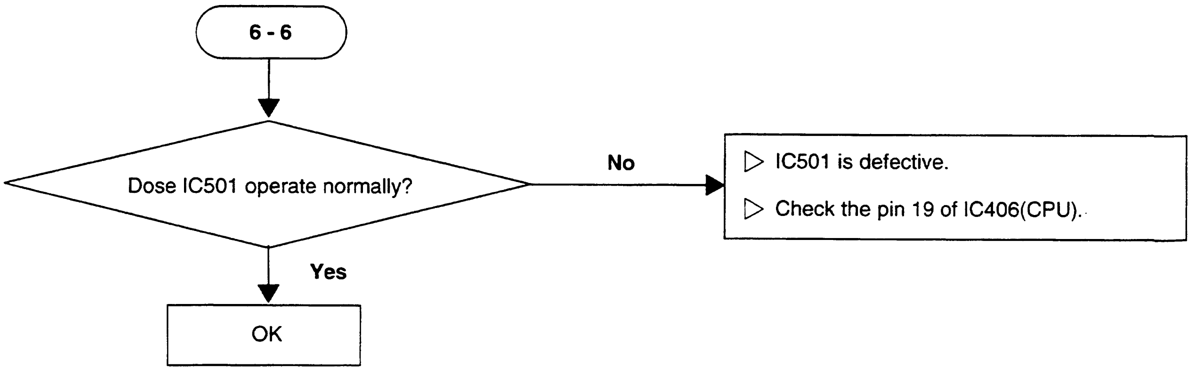


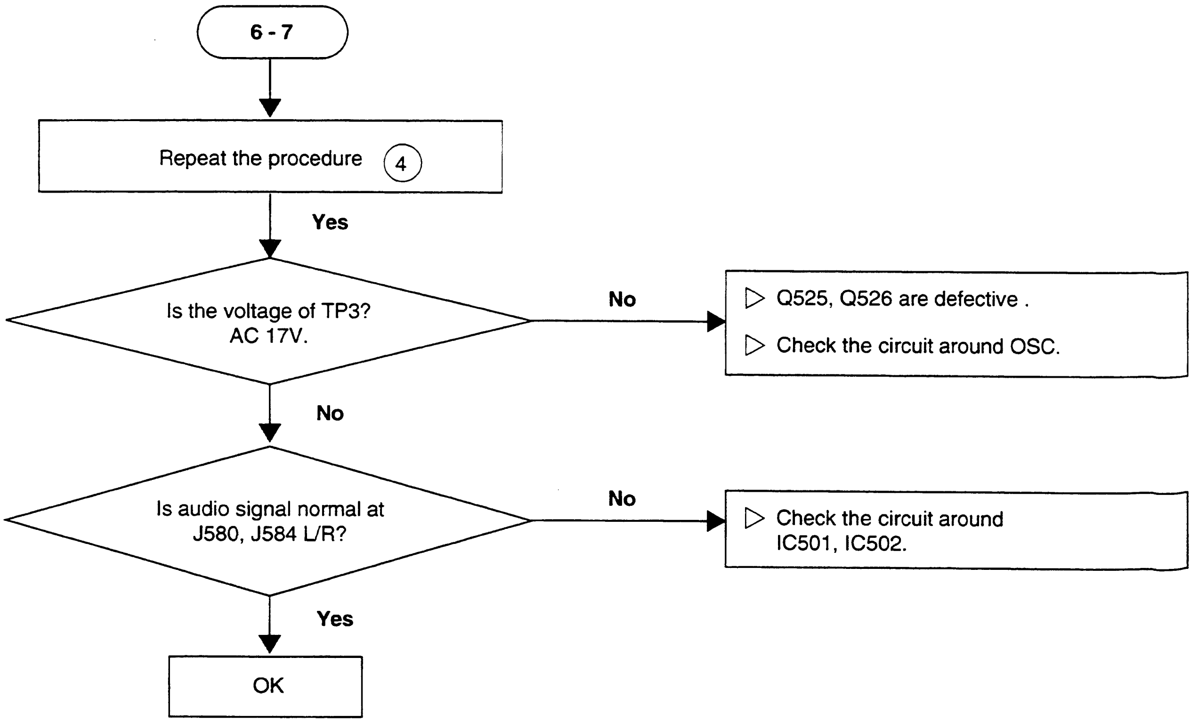
Figure 15

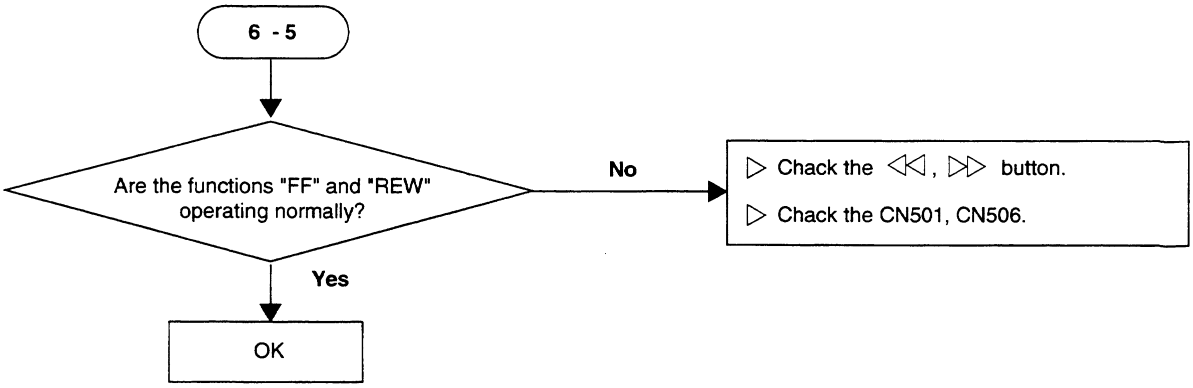

6 - 3
Dose play mode operate normally?
No
▷ Check the CPU and circuit around it.
Yes
OK

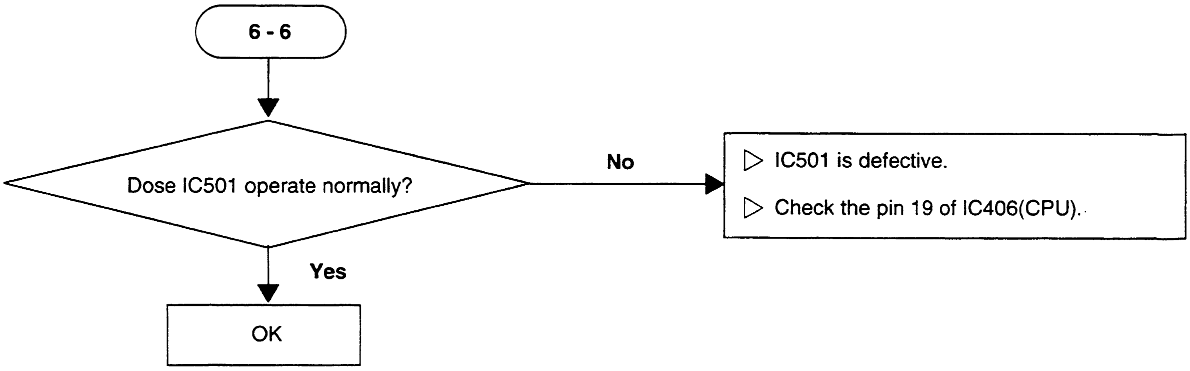

6 - 4
Press the PLAY button(◁ , ▷)
Yes
Is there the audio signal at pins 3, 14 of IC501?
No
Is it normal at IC501?
No
▷ Check the pin 10 IC501.
▷ Check the pin 4 (H : PB, L : REC).
Yes
Yes
Is there the audio signal at pins 13, 25 of IC502?
No
Is it normal at IC502?
No
▷ Check the pins 27, 28 of IC502.
At pin27 (H : Deck 1, L : Deck 2)
At pin28 (H : REC, L : P/B)
▷ Check the cold solder joints.
▷ Q519, Q520 are defective.
Yes
Yes
Dose PB/REC switching circuit operate normally?
No
▷ Q526 is defective.
▷ Check the collector voltages of Q525 (REC : 4.5V, PB : 0V)
Yes
Is head normally?
No
▷ Check the CN501, 504, 505, 506 from mechanism.
▷ Check the cold solder joints.
Yes
OK

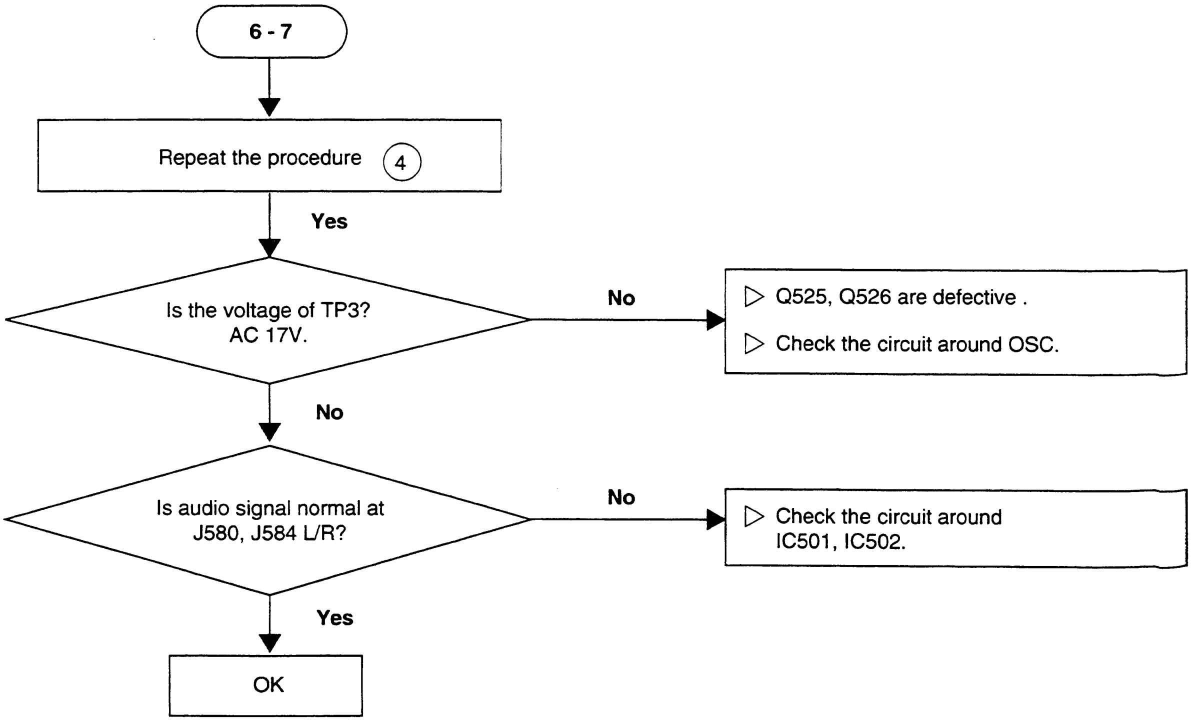

6 - 5
Are the functions "FF" and "REW" operating normally?
No
▷ Chack the ⊲⊲, ⊳⊳ button.
▷ Chack the CN501, CN506.
Yes
OK


6 - 6
Dose IC501 operate normally?
No
▷ IC501 is defective.
▷ Check the pin 19 of IC406(CPU).
Yes
OK


6 - 7
Repeat the procedure ④
Yes
Is the voltage of TP3? AC 17V.
No
▷ Q525, Q526 are defective .
▷ Check the circuit around OSC.
No
Is audio signal normal at J580, J584 L/R?
No
▷ Check the circuit around IC501, IC502.
Yes
OK


6 - 5
Are the functions "FF" and "REW" operating normally?
No
▷ Chack the ◁◁, ▷▷ button.
▷ Chack the CN501, CN506.
Yes
OK


6 - 6
Dose IC501 operate normally?
No
▷ IC501 is defective.
▷ Check the pin 19 of IC406(CPU).
Yes
OK


6 - 7
Repeat the procedure ④
Yes
Is the voltage of TP3? AC 17V.
No
▷ Q525, Q526 are defective .
▷ Check the circuit around OSC.
No
Is audio signal normal at J580, J584 L/R?
No
▷ Check the circuit around IC501, IC502.
Yes
OK

MECHANICAL PARTS LIST

Ref. No.	Description	Mfr. Part No.	Q'ty	Version
	PACKAGE			
	Box Carton	049605258602		A, B
	Box Carton	049605258601		K
	Box Carton	049605258603		D
	Cushion Corrugate Paper	9722040110		
	Film Soft PE	9715000120		A, K, B
	Film Soft PE	9715000510		D
	Poly Bag	9705001550		
	ACCESSORIES			
	Antenna Wire FM	4348000320		A, K, B
	Antenna FM	4348001110		D
	Antenna AM Loop Stand Strip Wire	2608207361		A, K, B
	Antenna AM	2608207360		D
	Commander	5418001232		A, D, B
	Commander	5418001231		K
	Compact Disc Demon	5058000310		K(Only)
	Manual Instruction	9007018511		B
	Manual Instruction	9007018510		K
	Manual Instruction	9007018513		A
	Manual Instruction	9007018512		D
	CABINET & CHASSIS			
1	Cover Top	6122030210	1	
2	Window CD Disc	048553024011	1	
3	Chassis Main	6121002410	1	
4	Fastener	6528301710	2	
5	Foot & Rubber	6035104310	2	
6	Panel Front	048501037311	1	
7	Ring Decoration	8525009510	1	
8	Knob Volume Main	8545133910	1	
9	Button Power, 1key	8545133510	1	
10	Button Deck Select	8545133810	1	
11	Button CD Skip, 2key	048545133611	1	
12	Button Play, 4key	8543071510	1	
(12)	Button Play, 4key	8543071410	1	D
13	Button Deck, 10key	048543071311	1	
14	Button Function, 14key	048542008111	1	
15	Window Display	8552005110	1	
16	Door CDC Tray	048563007911	1	
17	Bracket CDC Mecha "L"	6505142510	1	
18	Bracket CDC Mecha "R"	6505142520	1	
19	Door Deck "L"	048562006711	1	
20	Door Deck "R"	048562006811	1	
21	Window Deck "L"	8553024110	1	
22	Window Deck "R"	8553024210	1	
23	Body Deck Mecha	8521009310	1	
24	Locker Door	7318000110	2	
25	Damper Oil	6308001630	2	
26	Lid Cassette "L"	8562005910	1	
27	Lid Cassette "R"	8562006010	1	
28	Spring Door "L"	6555609710	1	
29	Spring Door "R"	6555609720	1	
30	Switch Tact	4658003710	29	
(30)	Switch Tact	4658003710	33	D
31	Mecha Deck (R/P)	5708015110	1	
32	Bracket Deck PCB "L"	6505141110	1	
33	Bracket Mecha Stopper	6505138910	2	
34	Mecha Deck (P/B)	5708015010	1	
35	Bracket Deck PCB "R"	6505141210	1	
36	Holder Regulator TR.	6515013910	1	
37	Mecha CDC (ICM-02A)	5728000830	1	
38	Cover CDC Mecha	6503032910	1	
39	Encoder Volume	4608400210	1	
40	Jack Mic	4438005510	1	
41	Volume Mic	3208069410	1	
42	Bracket Jack Mic	6505142210	1	
43	Jack Phone	4438005510	1	
44	Jack RCA, 2P	4438111310	1	
45	terminal Speaker, 4P	4408106410	1	
46	Heatsink Main	7503202110	1	
47	Clamp Power IC	6515014410	2	
48	Guide Regulator TR.	6045010710	1	
49	Holder Power IC	6045010610	2	
50	Terminal Antenna	4408107120	1	
(50)	Terminal Antenna	4408108210	1	D
51	Bracket Tuner PCB	6505142410	1	
(51)	Bracket Tuner PCB	6505142310	1	D
52	Switch Selector	4618006610	1	B (Only)
53	Chassis Back	046102045911	1	K
(53)	Chassis Back	046102045951	1	D
(53)	Chassis Back	046102045991	1	B
(53)	Chassis Back	046102045921	1	A
54	Stopper AC Cord	6518002310	1	
55	⚠ Cord AC Power	4308009310	1	K
(55)	⚠ Cord AC Power	4308009510	1	D
56	Terminal Ground	4408103720	1	D
57	AC Adapter	4448003310	1	B (Only)
58	Cover Insulation	4833006310	1	
59	Sponge Cushion	6715020730	1	
	HARDWARE KIT			
S1	Screw #2 BTC 3x8B	8179130083	10	
S2	Screw #2 WPTT 3x6Y	8179230061	27	
S3	Screw #B BTT 3x8B	8179130083	55	
S4	Screw Mecha 3x10	8155001210	5	
S5	Screw SAM 2.6x6Y	8119426061	4	
	MISCELLANEOUS			
	Card Cable, 21P, 220mm	4118621225		
	Card Cable, 27P, 240mm	4118627245		K, A, B
	Card Cable, 31P, 240mm	4118631245		D
	⚠ Power Transformer, 220 V, 60 Hz	2828100401		K
	⚠ Power Transformer, 230 V, 50 Hz	2828100411		D
	⚠ Power Transformer, 120 V, 60 Hz	2828100971		A
	⚠ Power Transformer, 110/220 V, 50/60 Hz	2828100421		B
PCB1	P.C.Board Tuner	4009000200		A, K, B
(PCB1)	P.C.Board Tuner	4001003600		D(Only)
PCB2	P.C.Board Front	4001003110		
PCB3	P.C.Board Phone	4001003120		
PCB4	P.C.Board Deck Key	4001003150		
PCB5	P.C.Board Main	4001003100		
PCB6	P.C.Board Voltage	4001003140		
PCB7	P.C.Board CD Main	4001003000		
PCB8	P.C.Board Deck	4004001600		

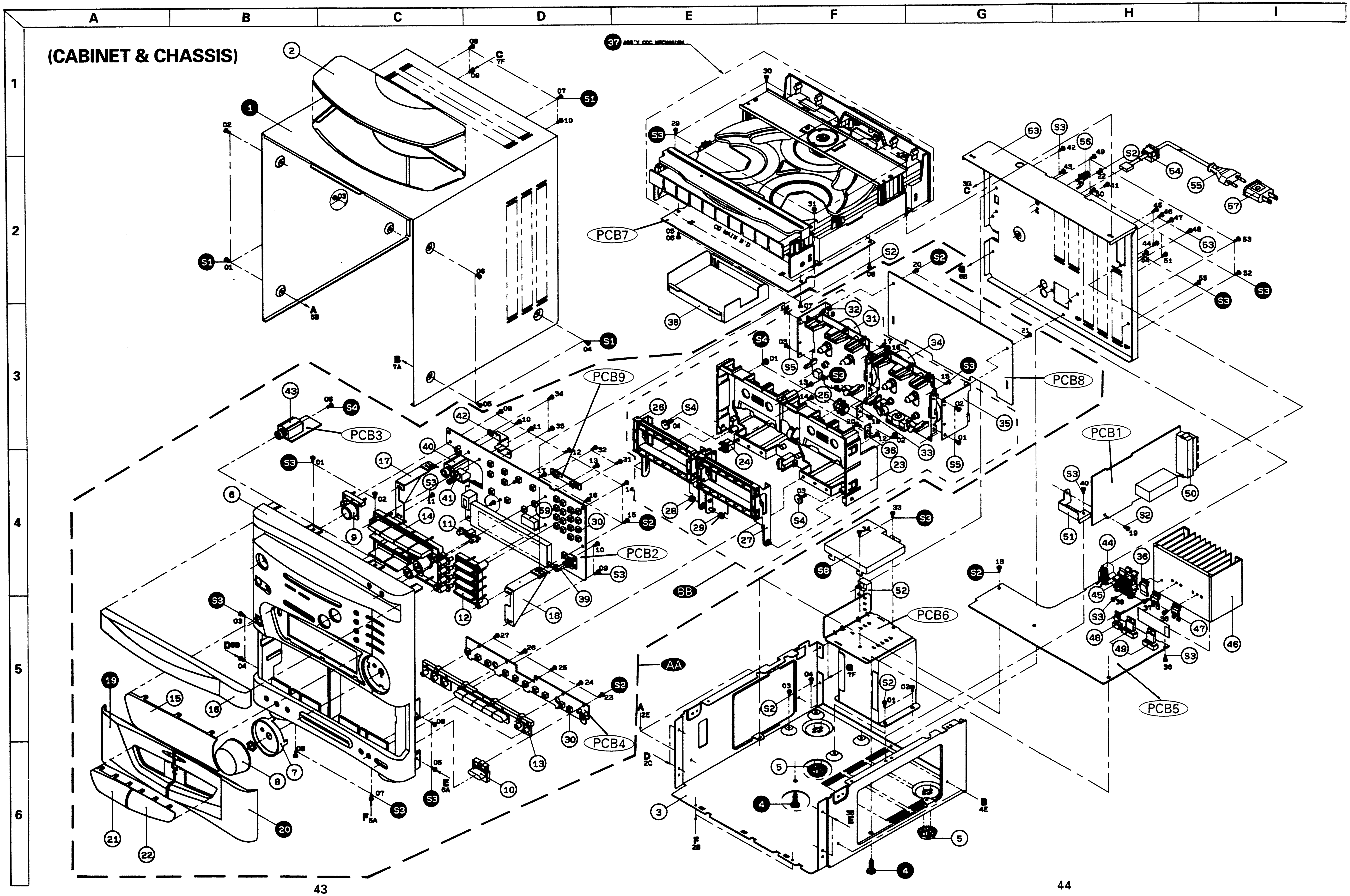
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list are of special significance to safety. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

EXPLODED VIEW I

Model No. : P-363R/P-363RDS

(CABINET & CHASSIS)


A
B
C
D
E
F
G
H
I
1
2
3
4
5
6
37 ASS'Y CDC MECHANISM
PCB1
PCB2
PCB3
PCB4
PCB5
PCB6
PCB7
PCB8
PCB9
AA
BB
S1
S2
S3
S4
S5
CD MAIN P.C.B

EXPLODED VIEW II

Model No. : P-363R/P-363RDS

A B C D E F G H I

CD MECHA PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Version
1	7105000410	Gear Center	2	
2	7105000510	Gear Pulley	1	
3	7105000610	Gear Roulette	1	
4	7105000710	Gear Motor	1	
5	7105000810	Gear Worm	1	
6	6125402910	Bracket Pickup	1	
7	6505133510	Barcket Side	2	
8	6023408720	Chuck Chassis	1	
9	6023801010	Barcket Motor	1	
10	6023601310	Frame Front	1	
11	6063103110	Guide Chuck	1	
12	7103001910	Gear Loading	1	
13	6062000410	Base D.U.	1	
14	7142000510	Cam Gear	1	
15	7142000610	Cover Cam	1	
16	7121400320	Roulette	1	
17	6021800410	Tray Roulette	1	
18	6021601310	Body Mecha	1	
19	6715022810	Rubber Limit	2	
20	6715023310	Rubber BKT	3	
21	7005007910	Shaft Gear Roulette	1	
22	6735011410	Cover Roulette	1	
23	6705022510	Sheet Tray	1	
24	6725003610	Sheet Tapping	1	
25	7165002510	Belt Loading	1	
26	4009500500	PCB Sensor	1	
27	6063103010	Base Magnet	1	
28	6023408610	Cover Magnet	1	
29	5125000910	Magnet	1	
30	7113001310	Pulley Motor	1	
31	6715018420	Rubber Damping	4	
32	6555009210	Spring Damping	4	
33	6705021910	Sponge Damping	2	
34	8338300710	Poly Washer(2, 1)	1	
35	8338301310	Poly Washer(4, 2)	1	
36	8338301410	Poly Washer(5, 2)	1	
37	8338301210	Poly Washer(3, 1)	1	
38	8155001210	Screw Mecha	3	
39	8155001110	Screw Damping	4	
40	8009120031	Screw BM 2 x 3 Y	2	
41	8009126041	Screw BM 2.6 x 4Y	4	
42	8159126081	Screw #1 WPT 2.6 x 8Y	2	
43	8109126081	Screw #1 BT 2.6 x 8Y	2	
44	8109130081	Screw #1 BT 3 x 8Y	3	
45	8109130101	Screw #1 BT 3 x 10B	8	
46	8159130151	Screw #1 WPT 3 x 15Y	1	
47	8109430051	Screw FTTS 3 x 5Y	1	
48	436105080121	CNT Loading 5P	1	
49	436105180121	CNT Chucking 5P	1	
50	5798100307	CNT Sensor 5P	1	
51	436202070132	CNT Motor 2P	1	
52	436202070132	CNT Header 2P	1	
53	3069151970	Res. CF 150 1/5W	1	
54	3069103970	Res. CF 10K 1/5W	1	
55	5728001020	Drive Uinit (KSM-2101ADM)	1	
56	5558001810	Motor RF-500FB-12580	2	
57	5558200410	Motor FF-130SH-14230	1	
58	4638003410	S/W Lever SSCF-2100AA	2	
59	2408001111	Photo Sensor SG-23F1	1	

1

2

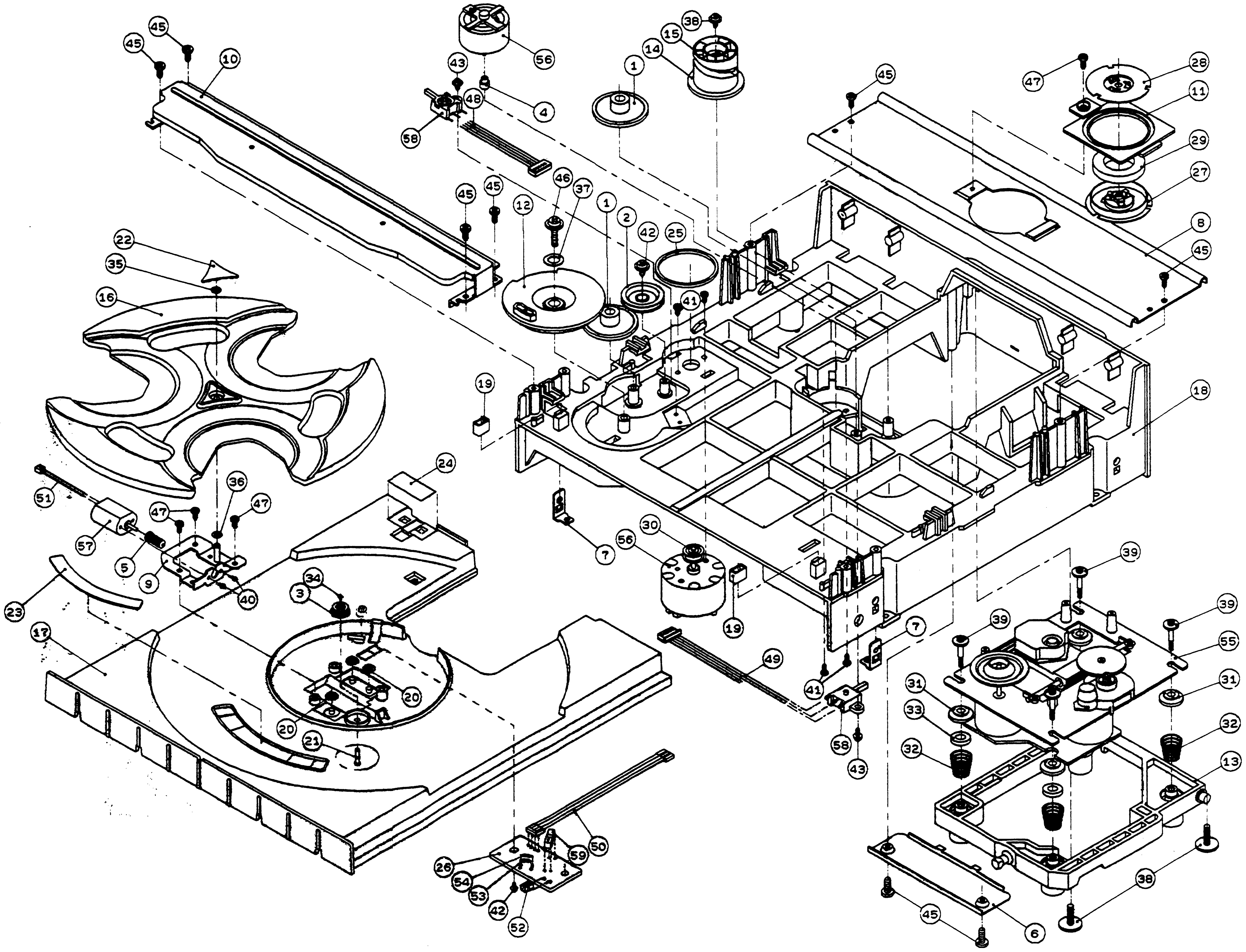
3

4

5

6

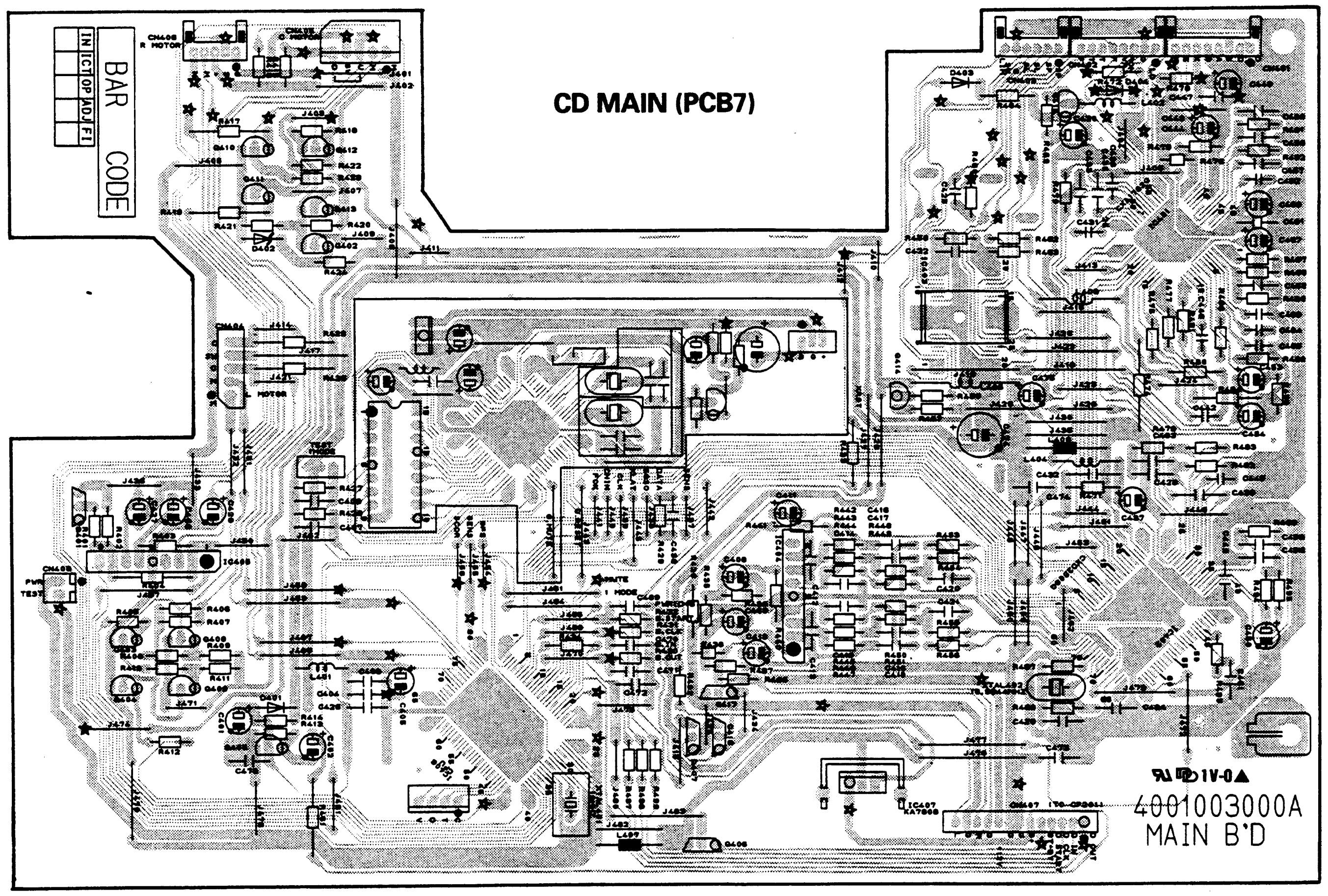
CD MECHANISM



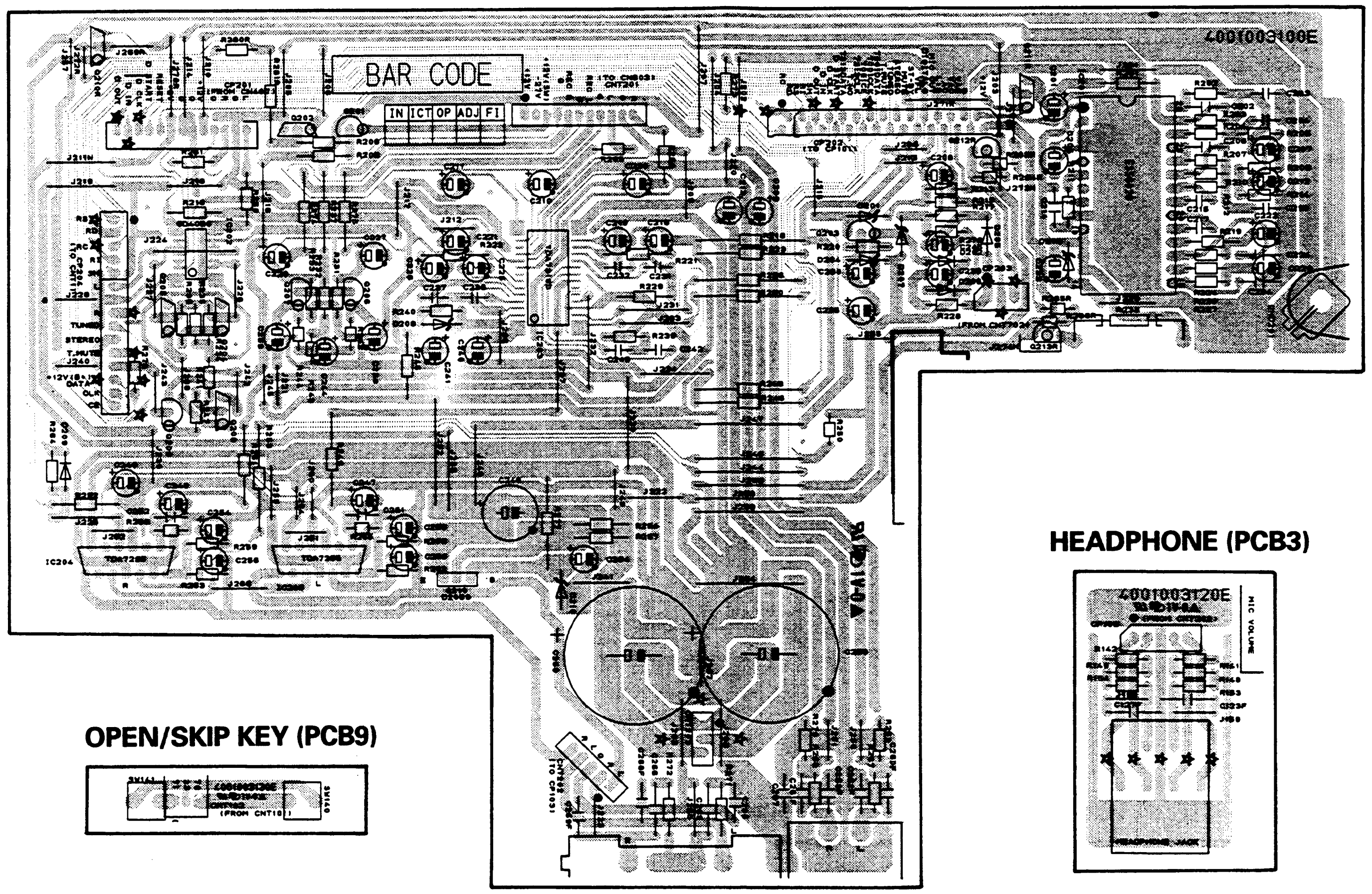
PRINTED CIRCUIT BOARD

Model No. : P-363R/P-363RDS

CD MAIN (PCB7)


BAR CODE
IN ICT OP ADJ FI
4001003000A
MAIN B'D

MAIN (PCB5)

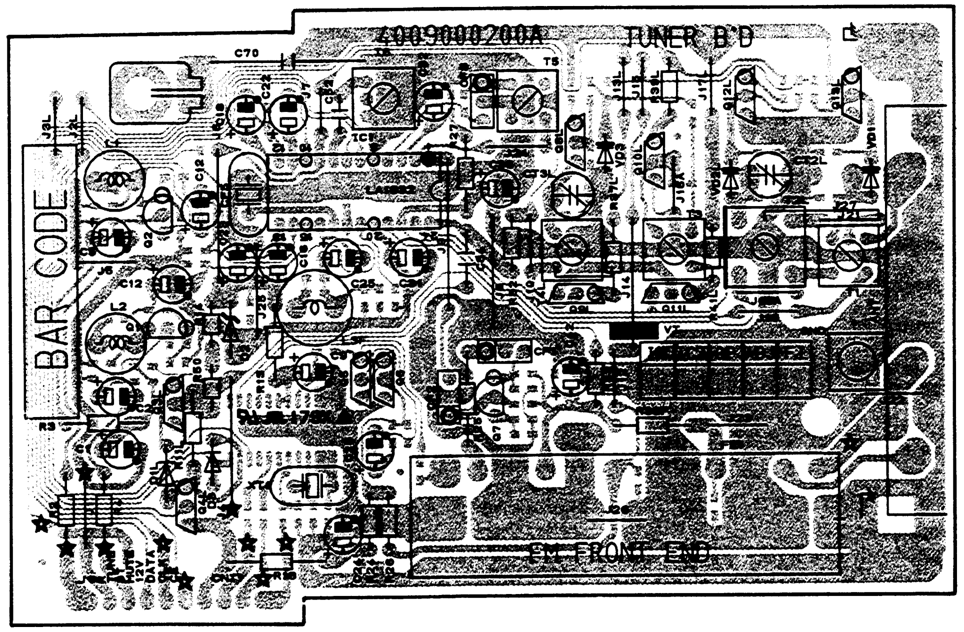

BAR CODE
IN ICT OP ADJ FI
4001003100E

OPEN/SKIP KEY (PCB9)

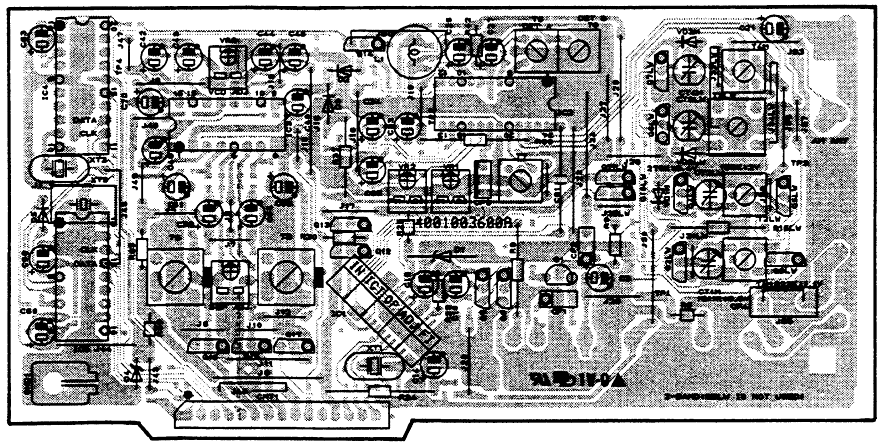
HEADPHONE (PCB3)

4001003120E

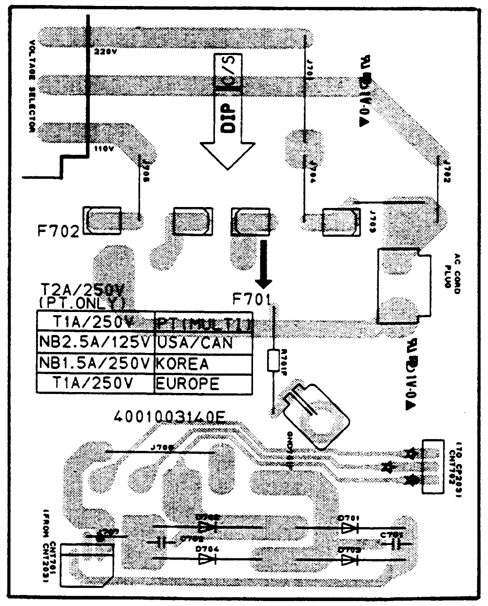
TUNER (PCB1) "A, B, K" VERSION


4009000200A
TUNER B'D
BAR CODE
FM FRONT END

TUNER (PCB1) "D" VERSION

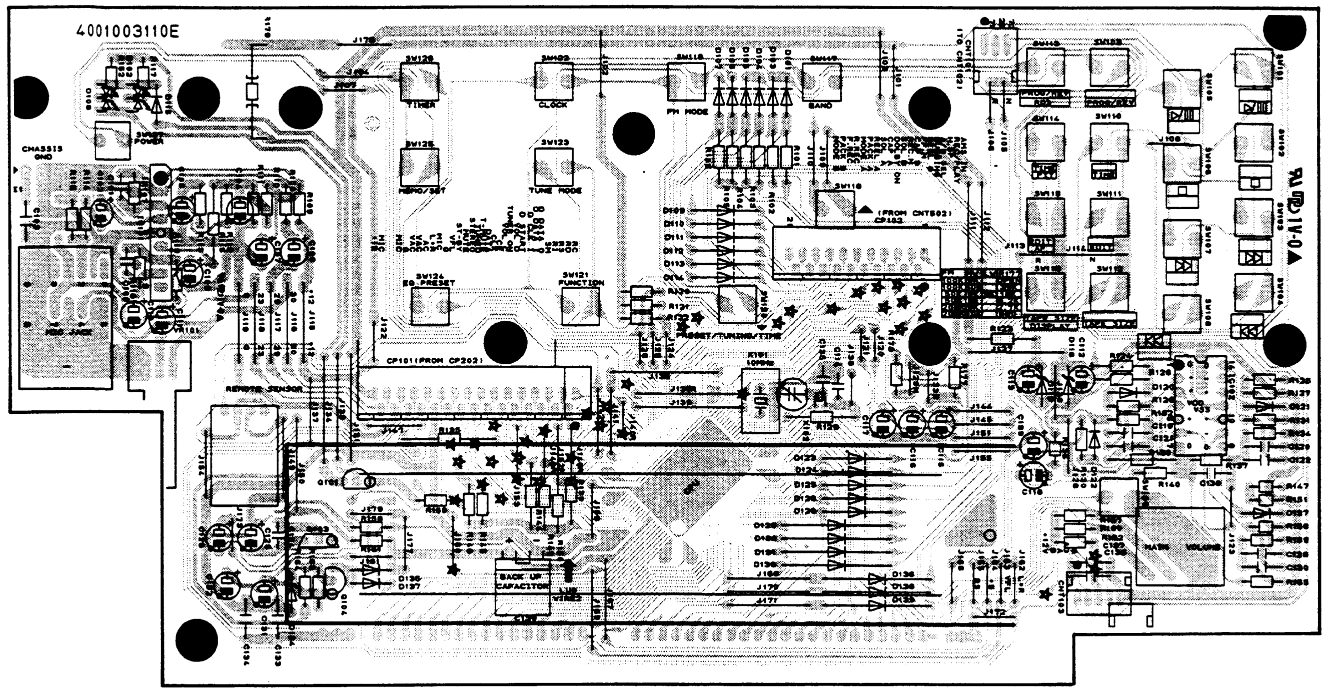

4001003680A

VOLTAGE (PCB6)

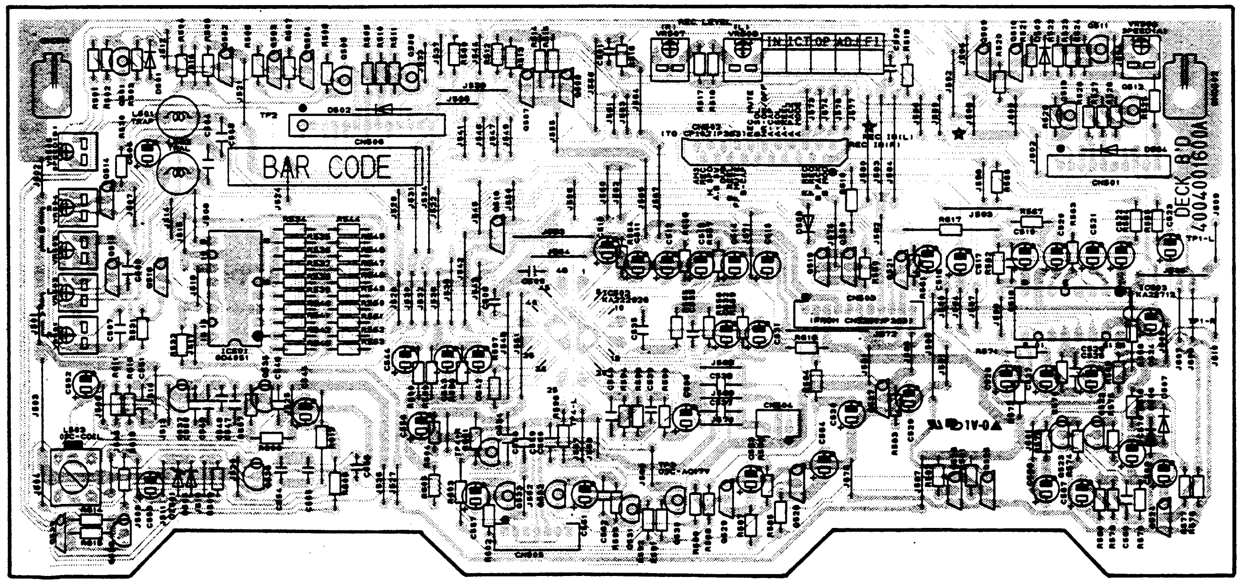

DIP S/S
F702
T2A/250V
(PT.ONLY)
F701
T1A/250V PT(MULTI)
NB2.5A/125V USA/CAN
NB1.5A/250V KOREA
T1A/250V EUROPE
4001003140E

Model No. : P-363R/P-363RDS

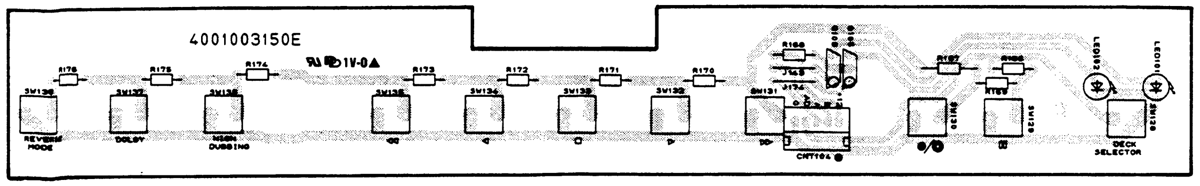
FRONT (PCB2)



DECK (PCB8)



DECK KEY (PCB4)



ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTICE : Products marked with ⚠ have special characteristics important to safety.
If you replace any of these components, read carefully the product safety notice in this manual.
Don't degrade the safety of the product through improper servicing.
Resistor/Capacitor tolerance – D : (±0.5%), J : (±5%), K : (±10%), M : (±20%), Z : +80, – 20%)

Ref. No.	Description					Mfr. Part No.	Q'ty	Version
PCB1	**ASSEMBLY P.C.BOARD TUNER**							**KS,A,PT INDO**
	CAPACITORS							
C1	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C2	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C3/C4	Ceramic Chip	0.0082	uF	50 V	J	3539822820	2	K, A
(C3/C4)	Ceramic Chip	0.0039	uF	50 V	J	3539392820	2	B
C5	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C6/C7	Ceramic Chip	220	pF	50 V	J	3539221210	2	KS, A
(C6/C7)	Ceramic Chip	330	pF	50 V	J	3539331210	2	PT INDO
C8	Ceramic Chip	0.012	uF	50 V	J	3539123820	1	
C9	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C10	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C11	Ceramic Chip	0.012	uF	50 V	J	3539123820	1	
C12	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C13/14	Ceramic Chip	0.012	uF	50 V	J	3539123820	2	K, A
(C13/14)	Ceramic Chip	0.0082	uF	50 V	J	3539822820	2	B
C15	Ceramic Chip	0.01	uF	50 V	J	3539103820	1	
C16	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C17	Ceramic Chip	1000	pF	50 V	J	3539102210	1	
C18	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C19/20	Ceramic Chip, CH	18	pF	50 V	J	3539180210	2	
C21	Ceramic Chip	100	pF	50 V	J	3539101210	1	
C22	Electrolytic SG	2.2	uF	50 V	M	3479322971	1	
C23	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C24	Ceramic Chip	0.01	uF	50 V	J	3539103820	1	
C25	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C26	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C27F	Not Used !							
C28	Electrolytic SG	3.3	uF	50 V	M	3479332971	1	
C29	Ceramic Chip	0.0082	uF	50 V	J	3539822820	1	
C30	Ceramic Chip	0.01	uF	50 V	J	3539103820	1	
C31	Electrolytic SG	4.7	uF	50 V	M	3479472971	1	
C32	Electrolytic SG	22	uF	25 V	M	3479222041	1	
C33	Ceramic Chip	0.01	uF	50 V	J	3539103820	1	
C34	Ceramic Tubular	0.01	uF	50 V	J	3519103915	1	
C35	Not Used !							
C36	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C37/38	Ceramic Chip	0.01	uF	50 V	J	3539103820	2	
C40	Ceramic Chip	0.01	uF	50 V	J	3539103820	1	
C41L	Not Used !							
C42	Electrolytic SG	220	uF	16 V	M	3479322131	1	
C43	Ceramic Chip	0.01	uF	50 V	J	3539103820	1	
C44	Ceramic Chip	8	pF	50 V	J	3539809200	1	
C45	Ceramic Chip	470	pF	50 V	J	3539471210	1	
C46L	Not Used !							
C48	Ceramic Chip	15	pF	50 V	J	3519150935	1	
C50	Ceramic Chip	0.047	uF	50 V	J	3539473060	1	
C51F	Not Used !							
C52	Ceramic Disc, CH	33	pF	50 V	J	3528330210	1	
CT2L/4L	Not Used !							
	FILTERS							
CF1/2	Ceramic, CDA10.7MA8-AT21					3978011001	2	K, A
(CF1/2)	Ceramic, CDA10.7MS3GH-TF21					3978011011	2	B
CF3	Ceramic, CFM2-450BL					3908001080	1	
CF5	Resonator, CSB456F15					3938131600	1	
	COILS							
L1/L2	Inductor, 8.2 mH					2648682275	2	
L3F	Not Used !							
T1	MW-ANT(W)					2608201120	1	
T2L	Not Used !							
T3	AM-OSC(R)					2638201150	1	
T4L	Not Used !							
T5	AM IFT					2848001250	1	
T6	FM DET					2838001114	1	
	CONNECTOR							
CNT1	Wafer,10P,from Input B'D					4408100929	1	
	DIODES							
D1L	Not Used !							
(D1L)	1N4148M,Switching					2058322101	1	
D2	Varactor,SVC211SPA-C					2258817103	1	
D3	Not Used !							
VD1	Varactor,SVC321SPA-C					2258817104	1	
VD2L	Not Used !							
VD3	Varactor,SVC321SPA-C					2258817104	1	

Ref. No.	Description					Mfr. Part No.	Q'ty	Version
	INTEGRATED CIRCUITS							
IC1	LA1832,IF.MPX					2138417002	1	
IC2	LM7001M,PLL					2138017136	1	
	TRANSISTORS							
Q1/Q2	KTC3198/KTC1815Y,NPN					2208606105	2	
Q3L/4L	Not Used !							
Q5/6	2SC3199Y/KTC3199Y, NPN					2208606109	2	
Q7	KTC3195-R, NPN					2208406128	1	
Q8L-13L	Not Used !							
	RESISTORS							
R1	Resistor Chip	1.8	kohm	1/10 W	J	3099182870	1	K, A
(R1)	Resistor Chip	2.7	kohm	1/10 W	J	3099272870	1	B
R2	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R3	Metal Film	1.8	kohm	1/5 W	J	3029182970	1	K, A
(R3)	Metal Film	2.7	kohm	1/10 W	J	3029272970	1	B
R4	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R5/6	Resistor Chip	330	kohm	1/10 W	J	3099334870	2	
R7/8	Resistor Chip	1	kohm	1/10 W	J	3099102870	2	K, A
(R7/8)	Resistor Chip	820	kohm	1/10 W	J	3099821870	2	B
R10	Resistor Chip	8.2	kohm	1/10 W	J	3099822870	1	
R11L	Not Used !							
R12	Resistor Chip	8.2	kohm	1/10 W	J	3099822870	1	
R13/14	Metal Film	68	ohm	1/5 W	J	3029680970	2	
R15-17	Resistor Chip	1	kohm	1/10 W	J	3099102870	3	
R18	Metal Film	330	ohm	1/5 W	J	3029331970	1	
R19/20	Resistor Chip	1	kohm	1/10 W	J	3099102870	2	
R21	Resistor Chip	3.3	kohm	1/10 W	J	3099332870	1	
R22	Resistor Chip	560	ohm	1/10 W	J	3099561870	1	
R24	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R25	Carbon Film	47	ohm	1/5 W	J	3069470970	1	
R26	Carbon Film	5.6	kohm	1/5 W	J	3069562970	1	
R27	Carbon Film	12	kohm	1/5 W	J	3069123870	1	K, A
(R27)	Carbon Film	33	kohm	1/5 W	J	3069333870	1	B
R28	Resistor Chip	470	ohm	1/10 W	J	3099471870	1	
R29	Resistor Chip	330	kohm	1/10 W	J	3099331870	1	
R30	Resistor Chip	2.2	kohm	1/10 W	J	3099222870	1	
R31	Resistor Chip	330	kohm	1/10 W	J	3099331870	1	
R32	Carbon Film	8.2	kohm	1/5 W	J	3069822970	1	K, A, B
R33	Carbon Film	82	ohm	1/5 W	J	3069820970	1	
R34L/35L	Not Used !							
R36	Resistor Chip	100	kohm	1/10 W	J	3099104870	1	
R37L	Not Used !							
R38F	Not Used !							
R39L	Not Used !							
R40F	Not Used !							
R41L-44L	Not Used !							
R45	Resistor Chip	100	kohm	1/10 W	J	3099104870	1	
R46	Resistor Chip	47	kohm	1/10 W	J	3099473870	1	
R47	Resistor Chip	470	ohm	1/10 W	J	3099471870	1	
	Jumper							
R49L	Not Used !							
R50	Metal Film	68	ohm	1/5 W	J	3029680970	1	
	MISCELLANEOUS							
XT1	Crystal, 7.2 MHz					3938223003	1	
29	Terminal, Antenna					4408107110	1	
FE1	Assembly, Front-End					054002009497	1	
50	Terminal Antenna					4408107120	1	
PCB1	**ASSEMBLY P.C.BOARD TUNER**							**D(Only)**
	CAPACITORS							
C1/C2	Ceramic Chip	0.022	uF	50 V	J	3539223820	2	
C3	Electrolytic SG	100	uF	16 V	M	3479310131	1	
C4	Ceramic Chip	470	pF	50 V	J	3539471210	1	
C5	Ceramic Chip	8	pF	50 V	J	3539800200	1	
C6LW	Ceramic Chip	180	pF	50 V	J	3539181210	1	
C7LW	Ceramic Chip	0.022	uF	50 V	J	3539223820	1	
C8LW	Ceramic Chip	0.01	uF	50 V	J	3539103820	1	
C9	Ceramic Chip	0.047	uF	50 V	J	3539473060	1	
C10	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C11	Ceramic Chip	0.01	uF	50 V	J	3539103820	1	
C12	Ceramic Chip	0.022	uF	50 V	J	3539223820	1	
C13	Ceramic Chip	0.01	uF	50 V	J	3539103820	1	
C14	Electrolytic SG	47	uF	16 V	M	3479347031	1	
C15	Ceramic Chip	0.022	uF	50 V	J	3539223820	1	
C16/C17	Ceramic Chip	18	pF	50 V	J	3539180210	2	
C18	Ceramic Chip	100	pF	50 V	J	3539101210	1	

Ref. No.	Description					Mfr. Part No.	Q'ty	Version
C19	Electrolytic SG	47	uF	16 V	M	3479347031	1	
C20	Ceramic Chip	0.022	uF	50 V	J	3539223820	1	
C21	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C22-C24	Ceramic Chip	0.022	uF	50 V	J	3539223820	3	
C25	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C26	Ceramic Chip	0.022	uF	50 V	J	3539223820	1	
C27	Electrolytic SG	47	uF	16 V	M	3479347031	1	
C28	Ceramic Chip	330	pF	50 V	J	3539331210	1	
C29/C30	Ceramic Chip	100	pF	50 V	J	3539101210	2	
C31/C32	Ceramic Chip	0.022	uF	50 V	J	3539223820	2	
C33	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C34	Electrolytic SG	3.3	uF	50 V	M	3479333971	1	
C35	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C36	Ceramic Chip	0.022	uF	50 V	J	3539223820	1	
C37	Ceramic Chip	0.0033	uF	50 V	J	3539332210	1	
C38	Ceramic Chip	0.039	uF	50 V	J	3539393060	1	
C39	Ceramic Chip	0.022	uF	50 V	J	3539223820	1	
C40	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C41	Ceramic Chip	1000	pF	50 V	J	3539102210	1	
C42	Electrolytic SG	3.3	uF	50 V	M	3479333971	1	
C43/C44	Electrolytic SG	1	uF	50 V	M	3479310971	2	
C45	Electrolytic SG	3.3	uF	50 V	M	3479333971	1	
C46	Ceramic Chip	0.047	uF	50 V	J	3539473060	1	
C47	Ceramic Chip	680	pF	50 V	J	3539681210	1	
C48	Electrolytic SG	100	uF	16 V	M	3479310131	1	
C49/C50	Ceramic Chip	1000	pF	50 V	J	3539102210	2	
C51	Electrolytic SG	2.2	uF	50 V	M	3479322971	1	
C52	Ceramic Chip	2200	pF	50 V	J	3539222210	1	
C53	Electrolytic SG	22	uF	16 V	M	3479322031	1	
C54	Ceramic Chip	270	pF	50 V	J	3539271210	1	
C55	Electrolytic SG	22	uF	16 V	M	3479322031	1	
C56	Electrolytic SG	2.2	uF	50 V	M	3479322971	1	
C57-C59	Ceramic Chip	2200	pF	50 V	J	3539222210	3	
C60	Electrolytic SG	47	uF	16 V	M	3479347031	1	
C61	Ceramic Tubular	0.01	uF	50 V	J	3519103935	1	
C62	Ceramic Chip	270	pF	50 V	J	3539271210	1	
C63	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C64	Ceramic Chip	0.1	uF	50 V	J	3539104060	1	
C65/C66	Ceramic Chip	27	pF	50 V	J	3539270210	2	
C67	Ceramic Chip	0.1	uF	50 V	J	3539104060	1	
C68	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C69	Ceramic Chip	0.1	uF	50 V	J	3539104060	1	
C70	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C71	Ceramic Chip	10	pF	50 V	J	3539100210	1	
CT1M	Trimmer, 20 pF					3838001010	1	
CT2LW	Trimmer, 20 pF					3838001010	1	
CT3LW	Trimmer, 20 pF					3838001010	1	
CT4M	Trimmer, 10 pF					3838001000	1	
	FILTERS							
CF1/2	Ceramic, SFE10.7MS3GH-ATF21					3978011011	2	
CF3	Ceramic, CFM2-450BL					3908001080	1	
	CONNECTOR							
CNT1	Wafer, 15P					4428511810	1	
	COILS							
L1	Inductor, 20.8 mH					2648601430	1	
T1M	MW-OSC					2638201150	1	
T2LW	LW-OSC(A)					2638401060	1	
T3LW	LW-ANT(B)					2608201130	1	
T4M	MW-ANT(W)					2608201120	1	
T5	FM-DET-A					2628000100	1	
T6	FM-DET-B					2628000110	1	
T7	AM-IFT					2848001250	1	
T8/T9	MPX Filter, 19/38K					2658001050	2	
	DIODES							
D1	Zener, UZ 5.1 BSB					2258599103	1	
D2/D3	1N4148M,Switching					2058322101	2	
D4	Zener, UZ 5.1 BSB					2258599103	1	
D5	1N4148M,Switching					2058322101	1	
VD1M	Varactor,SVC321SPA-C					2258817104	1	
VD2LW	Varactor,SVC321SPA-C					2258817104	1	
VD3M	Varactor,SVC321SPA-C					2258817104	1	
	INTEGRATED CIRCUITS							
IC1	LM7001M, PLL					2138017136	1	
IC2	LA1266					2168017128	1	
IC3	HA12016					2168411105	1	
IC4	TDA7330B					2138025001	1	
IC5	LC7073					2168017145	1	
	TRANSISTORS							
Q1	KTC1923Y/KTC3194Y, NPN					2208406103	1	
Q2LW-Q7LW	2SC3199Y/KTC3199Y, NPN					2208610109	6	
Q8/Q9	KTC2240BL/KTC3200, NPN					2208606108	2	
Q10LW	2SC3199Y/KTC3199Y, NPN					2208610109	1	
Q11LW	KRA107M					2238006103	1	
Q12/Q13	KRA107M					2238006103	2	
Q14	2SC3199Y/KTC3199Y, NPN					2208610109	1	
Q15/Q16	DTC323TS					2238422100	2	
Q17	KRA107M					2238006103	1	
	RESISTORS							
R1	Chip	100	ohm	1/10 W	J	3099101870	1	
R2	Chip	470	ohm	1/10 W	J	3099471870	1	
R3	Chip	3.3	kohm	1/10 W	J	3099332870	1	
R4	Chip	330	ohm	1/10 W	J	3099331870	1	
R5	Chip	330	ohm	1/10 W	J	3099331870	1	
R6	Carbon Film	100	kohm	1/5 W	J	3069104970	1	
R7	Chip	62	kohm	1/10 W	J	3099623870	1	
R8	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R9	Metal Film	47	ohm	1/5 W	J	3029470970	1	
R10	Chip	100	kohm	1/10 W	J	3099104870	1	
R11LW	Chip	1.5	Mohm	1/10 W	J	3099155870	1	
R12LW-R14LW	Chip	47	kohm	1/10 W	J	3099473870	3	
R15LW	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R16LW	Chip	100	kohm	1/10 W	J	3099104870	1	
R17LW	Chip	47	kohm	1/10 W	J	3099473870	1	
R18	Chip	100	kohm	1/10 W	J	3099104870	1	
R19LW	Chip	47	kohm	1/10 W	J	3099473870	1	
R20	Chip	1	kohm	1/10 W	J	3099102870	1	
R21	Chip	10	kohm	1/10 W	J	3099103870	1	
R22	Chip	1.5	kohm	1/10 W	J	3099152870	1	
R23	Metal Film	820	ohm	1/5 W	J	3029821970	1	
R24	Metal Film	270	ohm	1/5 W	J	3029271970	1	
R25	Metal Film	330	ohm	1/5 W	J	3029331970	1	
R26-R28	Chip	1	kohm	1/10 W	J	3099102870	3	
R29LW	Chip	10	kohm	1/10 W	J	3099103870	1	
R30	Carbon Film	33	kohm	1/5 W	J	3069333970	1	
R31	Chip	2.7	kohm	1/10 W	J	3099272870	1	
R32	Chip	68	kohm	1/10 W	J	3099683870	1	
R33	Chip	10	kohm	1/10 W	J	3099103870	1	
R34	Chip	22	kohm	1/10 W	J	3099223870	1	
R35	Chip	4.7	kohm	1/10 W	J	3099472870	1	
R36	Chip	1.8	kohm	1/10 W	J	3099182870	1	
R37	Carbon Film	100	kohm	1/5 W	J	3069104970	1	
R38	Chip	22	ohm	1/10 W	J	3099220870	1	
R39	Carbon Film	39	kohm	1/5 W	J	3069393970	1	
R40	Chip	10	kohm	1/10 W	J	3099103870	1	
R41	Chip	3.3	kohm	1/10 W	J	3099332870	1	
R42	Metal Film	270	ohm	1/5 W	J	3029271970	1	
R43	Chip	1.8	kohm	1/10 W	J	3099182870	1	
R44	Chip	47	kohm	1/10 W	J	3099473870	1	
R45	Chip	1	kohm	1/10 W	J	3099102870	1	
R46	Chip	100	kohm	1/10 W	J	3099104870	1	
R47	Chip	22	ohm	1/10 W	J	3099220870	1	
R48	Chip	5.6	kohm	1/10 W	J	3099562870	1	
R49	Chip	1	kohm	1/10 W	J	3099102870	1	
R50	Chip	100	kohm	1/10 W	J	3099104870	1	
R51	Chip	5.6	kohm	1/10 W	J	3099562870	1	
R52	Chip	2.4	kohm	1/10 W	J	3099242870	1	
R53/R54	Chip	51	kohm	1/10 W	J	3099513870	2	
R55	Chip	2.4	kohm	1/10 W	J	3099242870	1	
R56/R57	Chip	2.4	kohm	1/10 W	J	3099242870	2	
R58	Chip	3.9	kohm	1/10 W	J	3099392870	1	
R59/R60	Chip	22	kohm	1/10 W	J	3099223870	2	
R61	Chip	1	kohm	1/10 W	J	3099102870	1	
R62	Chip	3.3	kohm	1/10 W	J	3099332870	1	
R63	Chip	1	kohm	1/10 W	J	3099102870	1	
R64	Chip	3.3	kohm	1/10 W	J	3099332870	1	
R65	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R67	Chip	10	kohm	1/10 W	J	3099103870	1	
R68	Metal Film	680	ohm	1/5 W	J	3029681970	1	
R69	Chip	2.2	Mohm	1/10 W	J	3099225870	1	
R70-R74	Chip	10	kohm	1/10 W	J	3099103870	5	
R75-R77	Chip	0	ohm	1/10 W	J	3099000870	3	
	SEMI FIXED VARIABLE RESISTORS							
VR1	20 K(B)					3248020343	1	
VR2	100 K(B)					3248010443	1	
VR3	5 K(B)					3248050243	1	
VR4	100 K(B)					3248010443	1	
	CRYSTALS							
XT1	Crystal, 7.2 MHz					3938223003	1	

Ref. No.	Description					Mfr. Part No.	Q'ty	Version
XT2	4.332M					3938201920	1	
XT3	Resonator, 4.00MGW					3938131570	1	
	MISCELLANEOUS							
	FM front-end, FTH4-560V 4GANG, Vertical Type					3928101850	1	
GND1	Terminal Ground					4235007310	1	
(50)	Terminal Antenna					4408108210	1	D
PCB2	**ASSEMBLY P.C.BOARD FRONT & MIC**							
	CAPACITORS							
C101	Ceramic Disc	220	pF	50 V	J	3579221130	1	
C102	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C103	Ceramic Tubular	0.1	uF	50 V	Z	3519104935	1	
C104	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C105	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C106	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C107	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C108	Ceramic Disc	220	pF	50 V	J	3579221130	1	
C109	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C110/C111	Electrolytic SG	4.7	uF	50 V	M	3479347971	2	
C112	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C113	Electrolytic SG	22	uF	25 V	M	3479222041	1	
C114	Ceramic Disc	20	pF	50 V	J	3528200210	1	
C115	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C116	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C117	Electrolytic SG	0.47	uF	50 V	M	3479347871	1	
C118	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C119-C122	Ceramic Tubular	0.0047	uF	16 V	K	3519472915	4	
C124	Mylar	0.01	uF	100V	K	3679103267	1	
C125	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C126	Electrolytic SG	2.2	uF	50 V	M	3479322971	1	
C128	Ceramic Tubular	0.0047	uF	16 V	K	3519472915	1	
C129	Electrolytic Back-up	0.047	F	5.5 V	M	3438247315	1	
C130	Ceramic Tubular	0.0047	uF	16 V	K	3519472915	1	
C131/C132	Electrolytic SG	10	uF	50 V	M	3479310071	2	
C133/C134	Ceramic Tubular	0.022	uF	25 V	K	3519223520	2	
C135	Ceramic Disc	20	pF	50 V	J	3428200210	1	
C136/C137	Ceramic Tubular	0.022	uF	25 V	K	3519223520	2	
C138	Ceramic Tubular	5.6	pF	50 V	J	3519056935	1	
C139	Electrolytic SG	100	uF	10 V	M	3479310121	1	
	CONNECTORS							
CNT101	Lead Ass'y, 3P, 160mm					436203185032	1	
CNT103	Lead Ass'y, 5P, 350mm					435105354032	1	
CP101	Wafer, FMC, 27P					4428527826	1	KS,A,PT INDO
(CP101)	Wafer, FPC, 31P					4428531826	1	D(Only)
CP102	Wafer, FPC, 21P					4428521826	1	
	DIODES							
D101	1N4148M,Switching					2058322101	1	
D102	LED, SPR-54MDW3, Green/Amber					2308222205	1	
D103-D107	1N4148M,Switching					2058322101	5	
D108	LED, SPR-54MDW3, Green/Amber					2308222205	1	
D109-D115	1N4148M,Switching					2058322101	7	
D118/D119	Zener, UZ 7.5 BSC					2258599130	2	
D120-D133	1N4148M,Switching					2058322101	4	
D134	Zener, UZ 6.2 BSB					2258599105	1	
D135-D139	1N4148M,Switching					2058322101	5	
	INTEGRATED CIRCUITS							
IC101	KIA4559S/KIA75559S					2168206104	1	
IC102	LM324					2168212100	1	
IC103	CXP82440A-140Q, DWP452A					2139322707	1	
	TRANSISTORS							
Q101	2SC3199Y/KTC3199Y, NPN					2208610109	1	
Q103	DTC114YS					2208622106	1	
Q104	2SC3199Y/KTC3199Y, NPN					2208610109	1	
	RESISTORS							
R101-R106	Metal Film	4.7	kohm	1/5 W	J	3029472970	6	
R107	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R108	Metal Film	3.3	kohm	1/5 W	J	3029332970	1	
R109	Metal Film	47	ohm	1/5 W	J	3029470970	1	
R110	Metal Film	2.7	kohm	1/5 W	J	3029272970	1	
R111	Metal Film	3.3	kohm	1/5 W	J	3029332970	1	
R112	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R113	Metal Film	560	ohm	1/5 W	J	3029561970	1	
R114	Metal Film	4.7	kohm	1/5 W	J	3029472970	1	
R115	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R116	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R117	Metal Film	10	ohm	1/5 W	J	3029100970	1	
R118	Carbon Film	6.8	kohm	1/5 W	J	3069682970	1	
R119	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R120-R122	Carbon Film	100	kohm	1/5 W	J	3069104970	3	
R123	Metal Film	330	ohm	1/5 W	J	3029331970	1	
R124	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R125	Metal Film	560	ohm	1/5 W	J	3029561970	1	
R126/R127	Metal Film	1	kohm	1/5 W	J	3029102970	2	
R128	Carbon Film	12	kohm	1/5 W	J	3069123970	1	
R129	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R130	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R131	Carbon Film	120	kohm	1/5 W	J	3069124970	1	
R132	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R134	Carbon Film	22	kohm	1/5 W	J	3069223970	1	
R135	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R136	Metal Film	2.2	kohm	1/5 W	J	3029222970	1	
R137	Carbon Film	18	kohm	1/5 W	J	3069183970	1	
R138	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R139	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R140	Carbon Film	3.3	Mohm	1/5 W	J	3069335970	1	
R143/R144	Carbon Film	10	kohm	1/5 W	J	3069103970	2	
R145/R146	Carbon Film	47	kohm	1/5 W	J	3069473970	2	
R147	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R150	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R151	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R152	Metal Film	10	ohm	1/5 W	J	3029100970	1	
R155	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R156	Carbon Film	1	Mohm	1/5 W	J	3069105970	1	
R157	Carbon Film	100	kohm	1/5 W	J	3069104970	1	
R158	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R159	Carbon Film	220	kohm	1/5 W	J	3069224970	1	
R160/R161	Carbon Film	100	kohm	1/5 W	J	3069104970	2	
R162	Carbon Film	12	kohm	1/5 W	J	3069123970	1	
R163	Metal Film	560	ohm	1/5 W	J	3029561970	1	
R164	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R165	Carbon Film	270	kohm	1/5 W	J	3069274970	1	
R177	Metal Film	2.7	kohm	1/5 W	J	3029272970	1	K, A
(R177)	Metal Film	680	kohm	1/5 W	J	3029681970	1	A
(R177)	Carbon Film	8,2	kohm	1/5 W	J	3069822970	1	B
(R177)	Carbon Film	18	kohm	1/5 W	J	3069183970	1	D
R178	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R179	Metal Film	270	ohm	1 W	J	3029271470	1	
	MISCELLANEOUS							
X101	Resonator, 10MHz					3938124010	1	
X102	Crystal, 32.768KHz					3908111680	1	
RMC1	Remote Sensor					2408005001	1	
39	Encoder Volume					4608400210	1	
40	Jack Mic					4438005510	1	
41	Volume Mic					3208069410	1	
30	Switch Tact					4658003710	18	
(30)	Switch Tact					4658003710	22	D
	Rug Wire					152624101458	1	D(Only)
PCB3	**ASSEMBLY P.C.BOARD PHONE**							
C123F	CAP, Ceramic Tubul	0.1	uF	50 V	J	3519104935	1	
C127F	CAP, Ceramic Tubul	0.1	uF	50 V	J	3519104935	1	
R141/R142	RES, Metal Film	180	ohm	1/5 W	J	3029181970	2	
R148/R149	RES, Metal Film	180	ohm	1/5 W	J	3029181970	2	
R153/R154	RES, Metal Film	180	ohm	1/5 W	J	3029181970	2	
CP103	Connector, Wafer, 5P					4428506910	1	
43	Jack Phone					4438005510	1	
PCB4	**ASSEMBLY P.C.BOARD DECK KEY**							
Q105/Q106	Transistor, DTC114YS					2208622106	2	
LED101/102	LED, SLR-34GCN49					2381040301	2	
R166	RES, Metal Film	1	kohm	1/5 W	J	3029102970	1	
R167	RES, Metal Film	1.5	kohm	1/5 W	J	3029152970	1	
R168	RES, Metal Film	1	kohm	1/5 W	J	3029102970	1	
R169	RES, Metal Film	1.2	kohm	1/5 W	J	3029122970	1	
R170	RES, Metal Film	1.8	kohm	1/5 W	J	3029182970	1	
R171	RES, Metal Film	2.2	kohm	1/5 W	J	3029222970	1	
R172	RES, Metal Film	2.7	kohm	1/5 W	J	3029272970	1	
R173	RES, Carbon Film	4.3	kohm	1/5 W	J	3069432970	1	
R174	RES, Carbon Film	5.6	kohm	1/5 W	J	3069562970	1	
R175	RES, Carbon Film	7.5	kohm	1/5 W	J	3069752970	1	
R176	RES, Carbon Film	15	kohm	1/5 W	J	3069153970	1	
30	Switch Tact					4658003710	11	
PCB5	**ASSEMBLY P.C.BOARD MAIN**							
	CAPACITORS							
C201	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C202	Ceramic Tubular	560	pF	50 V	J	3519561935	1	

Ref. No.	Description					Mfr. Part No.	Q'ty	Version
C203	Mylar	0.0056	uF	100 V	J	3679562120	1	
C204	Mylar	0.033	uF	100 V	J	3679333120	1	
C205	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C206	Ceramic Tubular	560	pF	50 V	J	3519561935	1	
C207	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C208-C211	Electrolytic SG	2.2	uF	50 V	M	3479322971	4	
C212	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C213	Electrolytic SG	2.2	uF	50 V	M	3479322971	1	
C214	Ceramic Tubular	0.01	uF	16 V	K	3519103915	1	
C215	Mylar	0.047	uF	50 V	J	3679473120	1	
C216	Mylar	0.0056	uF	100 V	J	3679562120	1	
C217	Mylar	0.047	uF	50 V	J	3679473120	1	
C218-C221	Electrolytic SG	2.2	uF	50 V	M	3479322971	4	
C222	Electrolytic SG	0.33	uF	50 V	M	3479333871	1	
C223	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C224	Ceramic Tubular	0.01	uF	16 V	K	3519103915	1	
C225-C228	Electrolytic SG	2.2	uF	50 V	M	3479322971	4	
C229	Electrolytic SG	0.33	uF	50 V	M	3479333871	1	
C230	Electrolytic SG	33	uF	35 V	M	3479333061	1	
C231/C232	Mylar	0.1	uF	250 V	K	3679104257	2	
C233	Electrolytic SG	47	uF	50 V	M	3479347071	1	
C234	Ceramic Tubular	0.01	uF	16 V	K	3519103915	1	
C235	Electrolytic SG	33	uF	35 V	M	3479333061	1	
C236/C237	Mylar	0.001	uF	100 V	J	3679102120	2	
C238/C239	Electrolytic SG	2.2	uF	50 V	M	3479322971	2	
C240	Electrolytic SG	22	uF	25 V	M	3479222041	1	
C241	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C242/C243	Mylar	0.1	uF	250 V	K	3679104257	2	
C244	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C245	Electrolytic SG	1	uF	100 V	M	3479310921	1	
C246	Electrolytic SG	220	uF	16 V	M	3479322131	1	
C247/C248	Electrolytic SG	1	uF	50 V	M	3479310971	2	
C249	Electrolytic SG	22	uF	50 V	M	3479222071	1	
C250	Ceramic Tubular	0.1	uF	50 V	Z	3519104935	1	
⚠ C251/C252	Ceramic Tubular	1000	pF	50 V	J	3519102935	2	
C253/C254	Electrolytic SG	47	uF	25 V	M	3479347041	2	
C255/C256	Electrolytic SG	22	uF	50 V	M	3479222071	2	
⚠ C258/C259	Electrolytic SG	3300	uF	40 V	M	3419533294	2	
C260F-C263F	Ceramic Tubular	100	pF	50 V	J	3519101935	4	D(Only)
C264	Electrolytic SG	22	uF	25 V	M	3479222041	1	
C265/C266	Ceramic Tubular	0.047	uF	50 V	Z	3519473935	2	
C267	Ceramic Tubular	0.1	uF	50 V	Z	3519104935	1	
C268F/C269F	Ceramic Tubular	0.01	uF	16V	K	3519103915	2	D(Only)
	CONNECTORS							
CNT201	Lead Ass'y, 11P, 200mm					436211203332	1	
CNT202	Lead Ass'y, 5P, 350mm					436105353321	1	
CNT203	Lead Ass'y, 3P, 120mm					436103123331	1	
CP201	Wafer, 13P					4428517210	1	
CP202	Wafer, FPC, 27P					4428509025	1	
(CP202)	Wafer, FPC, 31P					4428509029	1	D(Only)
CP203	Wafer, 3P					4428505710	1	
CP204	Lead Ass'y, 10P, 140mm					436110143131	1	
(CP204)	Lead Ass'y, 15P, 140mm					436115143131	1	D(Only)
	DIODES							
D201	Zener, UZ 6.2 BSB					2258599105	1	
D202	1N4148M,Switching					2058322101	1	
D203	Zener, UZ 5.6 BSB					2258599104	1	
D204	Zener, UZ 27 BSC					2258599115	1	
D205/D206	1N4148M,Switching					2058322101	2	
D207	Zener, UZ 5.1 BSB					2258599103	1	
D208	Zener, UZ 9.1 BSC					2258599107	1	
D209	1N4148M,Switching					2058322101	1	
D210	Zener, UZ 12 BSC					2258599116	1	
	INTEGRATED CIRCUITS							
IC201	ES56028E, Digital Echo					2138633001	1	
IC202	GD4066BD, Chip Type					2138001101	1	
IC203	TDA7313					2168225101	1	
IC204/205	TDA7295					2168035000	2	
	TRANSISTORS							
Q201	MPSA56Y, PNP					2208206113	1	
Q202	DTC114YS					2208622106	1	
Q203	MPSA56Y, PNP					2208206113	1	
Q204/Q205	DTC114YS					2208622106	2	
Q206/Q207	KTC3198/KTC1815Y,NPN					2208606105	2	
Q208	DTC114YS					2208622106	1	
Q209	BKTA1266Y/KTA1015, PNP					2208206105	1	
Q210	KTD2058/2SD2058Y, NPN					2028406118	1	
Q210R	KTA1273					2228106104		
Q211R	DTC114YS					2208622106	1	
Q212R	MPSA56Y, PNP					2208206113	1	

Ref. No.	Description					Mfr. Part No.	Q'ty	Version
Q213R	MPSA56Y, PNP					2208206113	1	
	RESISTORS							
R201	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R202	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R203	Carbon Film	15	kohm	1/5 W	J	3069153970	1	
R204	Metal Film	3.3	kohm	1/5 W	J	3029332970	1	
R205	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R206	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R207	Carbon Film	15	kohm	1/5 W	J	3069153970	1	
R208	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R209	Carbon Film	8.2	kohm	1/5 W	J	3069822970	1	
R210	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R211	Carbon Film	27	kohm	1/5 W	J	3069273970	1	
R212	Carbon Film	15	kohm	1/5 W	J	3069153970	1	
R213	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R214	Carbon Film	5.6	kohm	1/5 W	J	3069562970	1	
R215	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R216	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R217	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R218	Metal Film	3.3	kohm	1/5 W	J	3029332970	1	
R219	Carbon Film	6.8	kohm	1/5 W	J	3069682970	1	
R220	Metal Film	4.7	kohm	1/5 W	J	3029472970	1	
R221/R222	Metal Film	1	kohm	1/5 W	J	3029102970	2	
R223	Carbon Film	680	kohm	1/5 W	J	3069684970	1	
R224	Carbon Film	75	kohm	1/5 W	J	3069753970	1	
R225	Carbon Film	6.8	kohm	1/5 W	J	3069682970	1	
R226	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R227	Carbon Film	75	kohm	1/5 W	J	3069753970	1	
R228	Metal Film	4.7	ohm	1/5 W	J	3029479970	1	
R229	Carbon Film	5.6	kohm	1/5 W	J	3069562970	1	
R230	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R231	Metal Film	4.7	kohm	1/5 W	J	3029472970	1	
R232	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R233	Metal Film	4.7	kohm	1/5 W	J	3029472970	1	
R234/C235	Carbon Film	10	kohm	1/5 W	J	3069103970	2	
R236	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R237	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R238	Metal Film	100	ohm	2 W	J	3029101570	1	
R239	Carbon Film	5.6	kohm	1/5 W	J	3069562970	1	
R240	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R241	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R242	Carbon Film	100	kohm	1/5 W	J	3069104970	1	
R243	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R244	Carbon Film	100	kohm	1/5 W	J	3069104970	1	
R245	Metal Film	220	ohm	1/5 W	J	3029221970	1	
R246	Metal Film	3.3	kohm	1/5 W	J	3029332970	1	
R247	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R248	Carbon Film	680	kohm	1/5 W	J	3069684970	1	
R249	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R250	Carbon Film	22	kohm	1/5 W	J	3069223970	1	
R251	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R252/R253	Carbon Film	22	kohm	1/5 W	J	3069223970	2	
R254	Metal Film	2.2	ohm	1/5 W	J	3029229970	1	
R255/R256	Carbon Film	27	kohm	1/5 W	J	3069273970	2	
R257	Metal Film	2.2	ohm	1/5 W	J	3029229970	1	
R258/R259	Metal Film	330	ohm	1/5 W	J	3029331970	2	
R260/R261	Metal Film	18	kohm	1/5 W	J	3029183970	2	
R262/R263	Carbon Film	27	kohm	1/5 W	J	3069273970	2	
R264	Carbon Film	22	kohm	1/5 W	J	3069223970	1	
R265/R265	Carbon Film	24	kohm	1/5 W	J	3069243970	2	
R267/R268	Metal Film	1	kohm	1/5 W	J	3029102970	2	
R269/R270	Carbon Film	47	kohm	1/5 W	J	3069473970	2	
R271/R272	Metal Film	10	ohm	1/5 W	J	3029100970	2	
R273	Carbon Film	8.2	kohm	1/5 W	J	3069822970	1	
R274/R275	Carbon Film	20	kohm	1/5 W	J	3069203970	2	
R276	Metal Film	3.9	kohm	1/5 W	J	3029392970	1	
R277	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R278	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R280R	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R283R	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R284R	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R285R	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R286R	Metal Film	470	ohm	1/5 W	J	3029471970	1	
	MISCELLANEOUS							
GND201	Terminal Ground					4235007310	1	
44	Jack RCA, 2P					4438111310	1	
45	terminal Speaker, 4P					4408106410	1	
48	Guide Regulator TR.					6045010710	1	
49	Holder Power IC					6045010610	2	

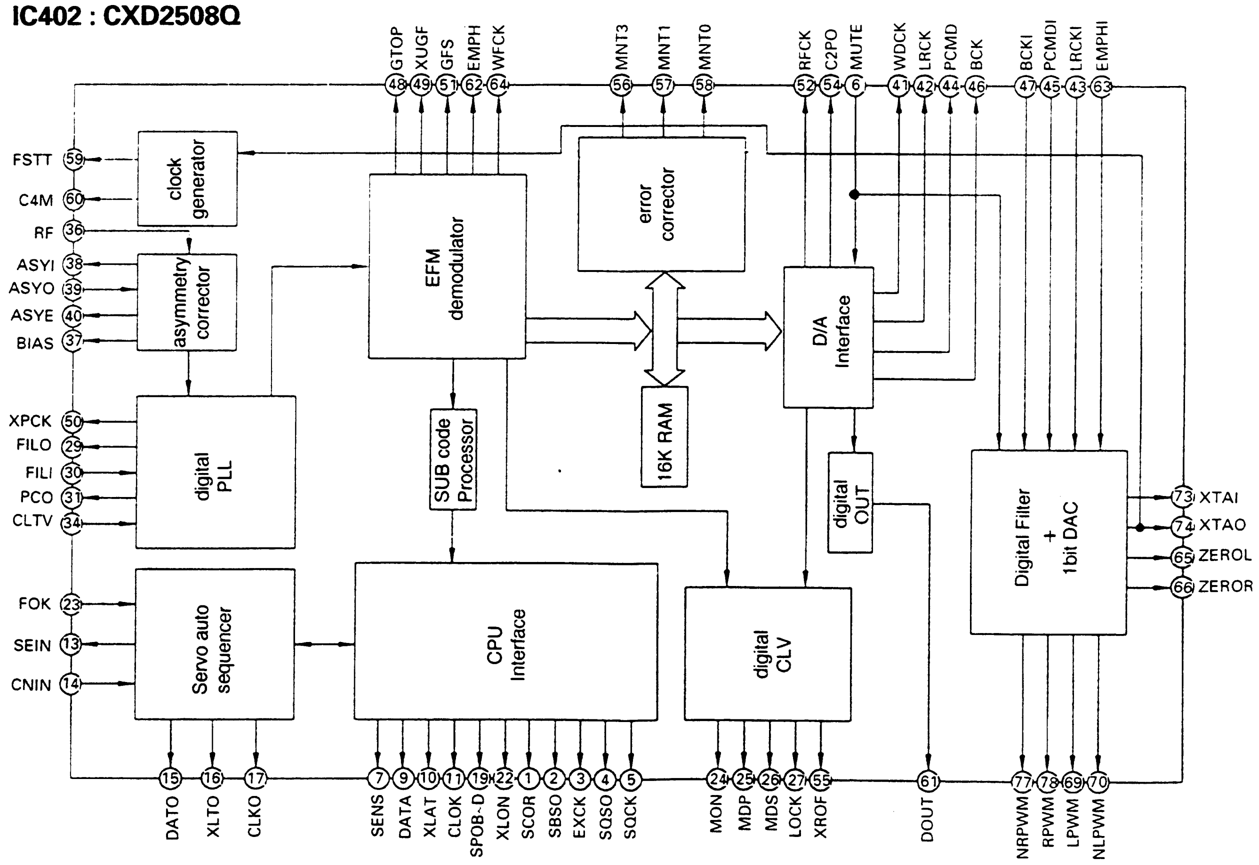
Ref. No.	Description					Mfr. Part No.	Q'ty	Version
PCB6	**ASSEMBLY P.C.BOARD VOLTAGE**							
C701/C702	CAP, Mylar	0.047	uF	100 V	J	3679473120	2	
CNT701	Connector, Wafer, 3P					4428513430	1	
CNT702	Connector, Lead Ass'y, 3P, 120mm					436103123331	1	
	Connector, AC PLUG					4428100291	1	
⚠ D701-D704	Diode, 1N5402, Rectifier					2058100136	4	
R701F	RES, Metal Film	3.3	Mohm	1/2 W	K	3029335380	1	A(Only)
GND701F	Terminal Ground					4235007310	1	A(Only)
⚠ F701	Fuse, NB, 1.5 A, 250 V					5508202230	1	K
⚠ (F701)	Fuse, T, 1 A, 250 V					5508302035	1	D, B
⚠ (F701)	Fuse, SB, 2.5 A, 125 V					5508102521	1	A
⚠ F702	Fuse, T, 2 A, 250 V					5508302435	1	B (Only)
52	Switch Selector					4618006610	1	B (Only)
58	Cover Insulation					4833006310	1	
PCB7	**ASSEMBLY P.C.BOARD CD MAIN**							
	CAPACITORS							
C401	Electrolytic SG	2.2	uF	50 V	M	3479322971	1	
C402	Electrolytic SG	3.3	uF	50 V	M	3479333971	1	
C403/C404	Ceramic Tubular	0.022	uF	25 V	Z	3519223520	2	
C405	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C406/C407	Ceramic Tubular	0.022	uF	25 V	Z	3519223520	2	
C408/C409	Electrolytic SG	47	uF	16 V	M	3479347031	2	
C410/C411	Electrolytic SG	10	uF	50 V	M	3479310071	2	
C412-C421	Ceramic Tubular	120	pF	50 V	K	3519121935	10	
C422	Ceramic Tubular	0.01	uF	16 V	K	3519103915	1	
C423	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C424	Electrolytic SG	470	uF	10 V	M	3479347121	1	
C425	Ceramic Disc	0.1	uF	50V	J	3579104530	1	
C427	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C428	Ceramic Tubular	0.022	uF	25 V	Z	3519223520	1	
C429	Ceramic Tubular	33	pF	50 V	J	3519330935	1	
C430	Electrolytic SG	22	uF	16 V	M	3479322031	1	
C431	Mylar	0.033	uF	100 V	J	3679333120	1	
C432	Ceramic Tubular	0.022	uF	25 V	Z	3519223520	1	
C433	Ceramic Tubular	0.01	uF	16 V	K	3519103915	1	
C434	Ceramic Tubular	33	pF	50 V	J	3519330935	1	
C435	Ceramic Tubular	0.01	uF	16 V	K	3519103915	1	
C436	Mylar	0.033	uF	100 V	J	3679333120	1	
C437	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C438	Ceramic Tubular	1000	pF	50 V	J	3519102935	1	
C439	Ceramic Tubular	0.01	uF	16 V	K	3519103915	1	
C440	Ceramic Tubular	0.022	uF	25 V	Z	3519223520	1	
C442	Mylar	0.047	uF	100 V	J	3679473120	1	
C443	Electrolytic SG	33	uF	16 V	M	3479233031	1	
C444	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C445	Mylar	0.0015	uF	100 V	J	3679152120	1	
C446	Mylar	0.033	uF	100 V	J	3679333120	1	
C447/C449	Ceramic Tubular	0.022	uF	25 V	Z	3519223520	2	
C450	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C451	Ceramic Tubular	0.022	uF	25 V	Z	3519223520	1	
C452	Ceramic Tubular	0.0022	uF	16 V	Z	3519222915	1	
C453	Electrolytic SG	22	uF	16 V	M	3479322031	1	
C454	Electrolytic SG	3.3	uF	50 V	M	3479333971	1	
C455/C456	Ceramic Tubular	0.01	uF	16 V	K	3519103915	2	
C457	Ceramic Tubular	0.022	uF	25 V	Z	3519223520	1	
C458	Ceramic Tubular	220	pF	50 V	J	3519221935	1	
C459	Ceramic Tubular	0.01	uF	16 V	K	3519103915	1	
C461	Ceramic Tubular	100	pF	50 V	J	3519101935	1	
C462-C465	Mylar	0.1	uF	63 V	K	3679104297	4	
C466	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C467	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C468	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C469-C472	Ceramic Tubular	47	pF	50 V	J	3519470935	4	
C474	Ceramic Tubular	0.1	uF	50 V	Z	3519104935	1	
C475	Electrolytic SG	470	uF	16 V	M	3409347139	1	
C476	Ceramic Tubular	0.1	uF	50 V	Z	3519104935	1	
C483	Ceramic Tubular	0.022	uF	25 V	Z	3519223520	1	
	CONNECTORS							
CN401/402	Wafer, 8P					4428525580	2	
CN403	Wafer, 6P					4428525560	1	
CN404	Wafer, 5P					4428513450	1	
CN405	Wafer, 5P					4428513450	1	
CN406	Wafer, 5P					4428506910	1	
CN407	Lead Ass'y, 13P, 300mm					436213303332	1	
CN408	Not Used!							
	DIODES							
D401	1N4148M,Switching					2058322101	1	
D402	Zener, UZ 5.1 BSB					2258599103	1	
D403/D404	1N4148M,Switching					2058322101	2	

Ref. No.	Description					Mfr. Part No.	Q'ty	Version
	INTEGRATED CIRCUITS							
IC401	CXA1782BQ					2138022117	1	
IC402	CXD2508Q					2138022119	1	
IC403	KA9258D					2138202120	1	
IC404	KIA4559S/KIA75559S					2168206104	1	
IC405	TA7291S					2168007204	1	
IC406	CXP82316-357Q, DWP327A					2139322708	1	
IC407	KA7808, Regulator					2168602101	1	
	COILS							
L401-L405	Inductor, 10 uH					2648610082	5	
L406/L407	Not Used!						2	
	TRANSISTORS							
Q401	DTC114YS					2208622106	1	
Q402-Q405	2SC3199Y/KTC3199Y, NPN					2208610109	4	
Q406	DTC114YS					2208622106	1	
Q407	DTA114YS					2208222105	1	
Q408/Q409	BKTA1267Y, PNP					2208206109	2	
Q410/Q411	2SC3199Y/KTC3199Y, NPN					2208610109	2	
Q412/Q413	BKTA1267Y, PNP					2208206109	2	
Q414	MPSA56Y, PNP					2208206113	1	
Q415	BKTA1267Y, PNP					2208206109	1	
Q416/Q417	DTC323TS					2238422100	2	
	RESISTORS							
R401	Metal Film	1.2	kohm	1/5 W	J	3029122970	1	
R402	Metal Film	2.2	kohm	1/5 W	J	3029222970	1	
R403	Metal Film	1	ohm	1/5 W	J	3029109970	1	
R404	Metal Film	3.3	kohm	1/5 W	J	3029332970	1	
R405	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R406	Metal Film	56	ohm	1/5 W	J	3029560970	1	
R407	Metal Film	33	ohm	1/5 W	J	3029330970	1	
R408	Metal Film	560	ohm	1/5 W	J	3029561970	1	
R409	Metal Film	2.2	kohm	1/5 W	J	3029222970	1	
R410	Metal Film	560	ohm	1/5 W	J	3029561970	1	
R411	Metal Film	2.2	kohm	1/5 W	J	3029222970	1	
R412	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R413	Carbon Film	27	kohm	1/5 W	J	3069273970	1	
R414	Carbon Film	22	kohm	1/5 W	J	3069223970	1	
R415/R416	Carbon Film	100	kohm	1/5 W	J	3069104970	2	
R417	Metal Film	330	ohm	1/5 W	J	3029331970	1	
R418	Metal Film	2.2	kohm	1/5 W	J	3029222970	1	
R419	Metal Film	330	ohm	1/5 W	J	3029331970	1	
R420	Metal Film	2.2	kohm	1/5 W	J	3029222970	1	
R421	Metal Film	4.7	kohm	1/5 W	J	3029472970	1	
R422/R423	Metal Film	330	ohm	1/5 W	J	3029331970	2	
R424	Metal Film	270	ohm	1/5 W	J	3029271970	1	
R425/R426	Carbon Film	100	kohm	1/5 W	J	3069104970	2	
R427/R428	Carbon Film	10	kohm	1/5 W	J	3069103970	2	
R429	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R430-R432	Carbon Film	100	kohm	1/5 W	J	3069104970	3	
R433/R434	Metal Film	1	kohm	1/5 W	J	3029102970	2	
R435/R436	Carbon Film	22	kohm	1/5 W	J	3069223970	2	
R437	Metal Film	220	ohm	1/5 W	J	3029221970	1	
R438-R442	Carbon Film	47	kohm	1/5 W	J	3069473970	5	
R443-R446	Carbon Film	33	kohm	1/5 W	J	3069333970	4	
R447	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R448-R451	Carbon Film	33	kohm	1/5 W	J	3069333970	4	
R452	Metal Film	3.9	kohm	1/5 W	J	3029392970	1	
R453-R456	Carbon Film	10	kohm	1/5 W	J	3069103970	4	
R457	Metal Film	4.7	kohm	1/5 W	J	3029472970	1	
R458	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R459	Metal Film	4.7	ohm	1/5 W	J	3029479970	1	
R460	Metal Film	10	ohm	1/5 W	J	3029100970	1	
R461	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R462/R463	Carbon Film	10	kohm	1/5 W	J	3069103970	2	
R464	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R465	Metal Film	3.9	kohm	1/5 W	J	3029392970	1	
R467	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R468	Carbon Film	1	Mohm	1/5 W	J	3069105970	1	
R469	Metal Film	22	ohm	1/5 W	J	3029220970	1	
R470	Carbon Film	39	kohm	1/5 W	J	3069393970	1	
R471	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R472	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R473	Metal Film	3.3	kohm	1/5 W	J	3029332970	1	
R474	Carbon Film	120	kohm	1/5 W	J	3069124970	1	
R475	Carbon Film	82	kohm	1/5 W	J	3069823970	1	
R476	Carbon Film	22	kohm	1/5 W	J	3069223970	1	
R477	Carbon Film	82	kohm	1/5 W	J	3069823970	1	
R478	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R479	Carbon Film	22	kohm	1/5 W	J	3069223970	1	
R480	Carbon Film	470	kohm	1/5 W	J	3069474970	1	
R481	Carbon Film	75	kohm	1/5 W	J	3069753970	1	

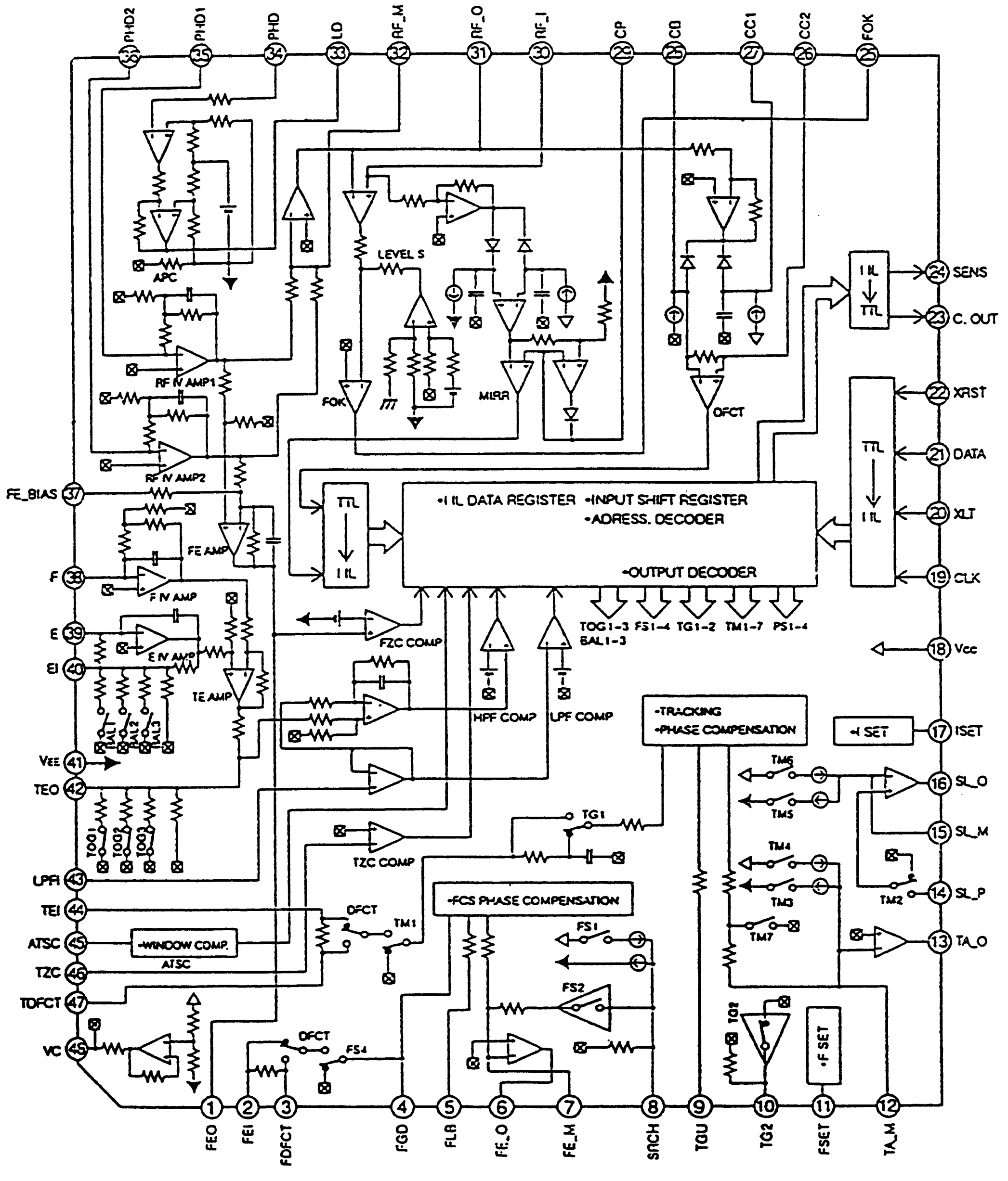
Ref. No.	Description					Mfr. Part No.	Q'ty	Version
R482	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R483	Metal Film	3.3	kohm	1/5 W	J	3029332970	1	
R484	Carbon Film	8.2	kohm	1/5 W	J	3069822970	1	
R485	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R486	Carbon Film	68	kohm	1/5 W	J	3069683970	1	
R487-R489	Carbon Film	10	kohm	1/5 W	J	3069103970	3	
R490	Carbon Film	680	kohm	1/5 W	J	3069684970	1	
R491/R492	Carbon Film	100	kohm	1/5 W	J	3069104970	2	
R493	Carbon Film	1	Mohm	1/5 W	J	3069105970	1	
R494	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R495	Carbon Film	100	kohm	1/5 W	J	3069104970	1	
R496	Carbon Film	15	kohm	1/5 W	J	3069153970	1	
R497-R499	Metal Film	1	kohm	1/5 W	J	3029102970	3	
	MISCELLANEOUS							
XTAL401	Resonator, 10MHz					3938124010	1	
XTAL402	Crystal, 16.9344MHz					3938201960	1	
PCB8	**ASSEMBLY P.C.BOARD DECK**							
	CAPACITORS							
C501/C502	Mylar	0.022	uF	100V	J	3679223120	2	
C503/C504	Ceramic Tubular	2200	pF	10 V	K	3519222915	2	
C505	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C506/C507	Ceramic Tubular	680	pF	50 V	J	3519681935	2	
C508/C509	Mylar	0.033	uF	100V	J	3679333120	2	
C510	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C511	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C512/C513	Electrolytic SG	47	uF	25 V	M	3479347041	2	
C514	Electrolytic SG	220	uF	10 V	M	3479322121	1	
C515	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C516	Electrolytic SG	2.2	uF	50 V	M	3479322971	1	
C517	Electrolytic SG	3.3	uF	50 V	M	3479333971	1	
C518	Ceramic Tubular	2200	pF	16 V	K	3519222915	1	
C519	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C520	Electrolytic SG	3.3	uF	50 V	M	3479333971	1	
C521	Electrolytic SG	0.68	uF	50 V	M	3479368871	1	
C522/C523	Electrolytic SG	4.7	uF	50 V	M	3479347971	2	
C524	Electrolytic SG	0.68	uF	50 V	M	3479368871	1	
C525	Electrolytic SG	47	uF	10 V	M	3479347021	1	
C526	Ceramic Tubular	2200	pF	16 V	K	3519222915	1	
C527	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C528	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C529	Electrolytic SG	2.2	uF	50 V	M	3479322971	1	
C530	Electrolytic SG	22	uF	50 V	M	3479322071	1	
C531	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C532	Electrolytic SG	22	uF	25 V	M	3479222041	1	
C533	Mylar	0.015	uF	100V	J	3679153120	1	
C535	Ceramic Tubular	330	pF	50 V	J	3519331935	1	
C536/C537	Ceramic Tubular	820	pF	50 V	J	3519821935	2	
C538	Electrolytic SG	22	uF	25 V	M	3479222041	1	
C539	Mylar	0.015	uF	100 V	J	3679153120	1	
C540	Ceramic Tubular	330	pF	50 V	J	3519331935	1	
C542	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C543	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C544	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C545	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C546	Ceramic Tubular	0.01	uF	16 V	Y	3519103915	1	
C547	Ceramic Tubular	1000	pF	50 V	J	3519102935	1	
C548	Mylar	0.022	uF	100 V	J	3679223120	1	
C549	Ceramic Tubular	1000	pF	50 V	J	3519102935	1	
C550/C551	Ceramic Tubular	0.01	uF	16 V	K	3519103915	2	
C552	Electrolytic SG	100	uF	10 V	M	3479310121	1	
C553	Electrolytic SG	1	uF	50 V	M	3479310971	1	
C554	Mylar	0.0056	uF	100 V	J	3679562120	1	
C555	Mylar	0.022	uF	100 V	J	3679223120	1	
C556	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
C557	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C558	Ceramic Tubular	1000	pF	50 V	J	3519102935	1	
C559/C560	Ceramic Tubular	680	pF	50 V	J	3519681935	2	
C561	Electrolytic SG	10	uF	50 V	M	3479310071	1	
C562	Ceramic Tubular	1000	pF	50 V	J	3519102935	1	
C563	Electrolytic SG	47	uF	25 V	M	3479347041	1	
C564	Electrolytic SG	22	uF	25 V	M	3479222041	1	
C565	Mylar	0.0018	uF	100 V	J	3679182120	1	
C566/C567	Electrolytic SG	4.7	uF	50 V	M	3479347971	2	
C568	Ceramic Tubular	2200	pF	10 V	K	3519222915	1	
C569	Electrolytic SG	0.1	uF	50 V	M	3479310871	1	
C570	Electrolytic SG	4.7	uF	50 V	M	3479347971	1	
	CONNECTORS							
CN501	Lead Ass'y, 10P, 120mm					436410120732	1	
CN502	Wafer, FPC, 21P					4428526330	1	
CN503	Wafer, 11P					4428517010	1	
CN504	Wafer, 3P					4428516210	1	
CN505	Wafer, 7P					4428516610	1	
CN506	Lead Ass'y, 13P, 120mm					436413120732	1	
	DIODES							
D501-D508	1N4148M,Switching					2058322101	8	
DZ501	Zener, UZ 7.5 BSC					2258599130	1	
	INTEGRATED CIRCUITS							
IC501	GD4051B					2138001134	1	
IC502	KA22292Q					2168202130	1	
IC503	KA22712, Dolby B Type					2168002113	1	
	COILS							
L501/L502	TRAP105K					26386013602	2	
	TRANSISTORS							
Q501	MPSA56Y, PNP					2208206113	1	
Q502-Q504	DTC114YS					2208622106	3	
Q505/Q506	MPSA56Y, PNP					2208206113	2	
Q507-Q510	DTC114YS					2208622106	4	
Q511-Q513	MPSA56Y, PNP					2208206113	3	
Q514/Q515	DTA114TS					2208222104	2	
Q516/Q518	DTC114YS					2208622106	2	
Q519/Q520	DTC114TS					2208622108	2	
Q521	DTC323TS					2238422100	1	
Q522	BKTA1266Y/KTA1015, PNP					2208206105	1	
Q523	KTC3198/KTC1815Y,NPN					2208606105	1	
Q524-Q526	DTC114YS					2208622106	3	
Q527	DTC323TS					2238422100	1	
Q528/Q529	DTA114TS					2208222104	2	
Q530-Q534	2SK117Y, FET					2218207106	5	
Q535	KTC2236AY/KTC3205Y, NPN					2228407117	1	
Q536	KTC2240BL/KTC3200, NPN					2208606108	1	
Q537	KTC2236AY/KTC3205Y, NPN					2228407117	1	
Q538	KTC3198/KTC1815Y,NPN					2208606105	1	
Q539	DTC114YS					2208622106	1	
	RESISTORS							
R500	Carbon Film	240	ohm	1/5 W	J	3069241970	1	
R501	Carbon Film	1.5	kohm	1/5 W	J	3069152970	1	
R502	Metal Film	220	ohm	1/5 W	J	3029221970	1	
R503	Carbon Film	15	kohm	1/5 W	J	3069153970	1	
R504	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R505	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R506	Carbon Film	750	ohm	1/5 W	J	3069751970	1	
R507	Carbon Film	750	ohm	1/5 W	J	3069751970	1	
R508	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R509	Carbon Film	68	kohm	1/5 W	J	3069683970	1	
R510	Carbon Film	750	ohm	1/5 W	J	3069751970	1	
R511	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R512	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R513	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R514	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R515	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R516	Carbon Film	6.8	kohm	1/5 W	J	3069682970	1	
R517	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R518	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R519	Carbon Film	6.8	kohm	1/5 W	J	3069682970	1	
R520/R521	Carbon Film	750	ohm	1/5 W	J	3069751970	2	
R522	Carbon Film	15	kohm	1/5 W	J	3069153970	1	
R523	Carbon Film	1.5	kohm	1/5 W	J	3069152970	1	
R524	Metal Film	220	ohm	1/5 W	J	3029221970	1	
R525	Carbon Film	240	ohm	1/5 W	J	3069241970	1	
R526	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R527	Carbon Film	750	ohm	1/5 W	J	3069751970	1	
R528	Carbon Film	68	kohm	1/5 W	J	3069683970	1	
R529	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R530	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R531	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R533	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R534-R543	Not Used !							
R544	Carbon Film	150	kohm	1/5 W	J	3069154970	1	
R545	Carbon Film	120	kohm	1/5 W	J	3069124970	1	
R546	Carbon Film	270	kohm	1/5 W	J	3069274970	1	
R547	Carbon Film	39	kohm	1/5 W	J	3069393970	1	
R548	Carbon Film	51	kohm	1/5 W	J	3069513970	1	
R549/R550	Carbon Film	150	kohm	1/5 W	J	3069154970	2	
R551	Carbon Film	270	kohm	1/5 W	J	3069274970	1	
R552	Carbon Film	22	kohm	1/5 W	J	3069223970	1	
R553	Carbon Film	75	kohm	1/5 W	J	3069753970	1	
R554	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R555	Carbon Film	12	kohm	1/5 W	J	3069123970	1	
R556	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R557	Carbon Film	3.3	Mohm	1/5 W	J	3069335970	1	
R558	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R559	Metal Film	82	ohm	1/5 W	J	3029820970	1	
R560	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R561	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R562	Carbon Film	3.3	kohm	1/5 W	J	3069332970	1	
R563	Carbon Film	47	kohm	1/5 W	J	3069473970	1	
R564/R565	Carbon Film	7.5	kohm	1/5 W	J	3069752970	2	
R566	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R567	Carbon Film	15	kohm	1/5 W	J	3069153970	1	
R568/R569	Carbon Film	150	kohm	1/5 W	J	3069154970	2	
R570	Carbon Film	3.3	kohm	1/5 W	J	3069332970	1	
R571	Carbon Film	5.1	kohm	1/5 W	J	3069512970	1	
R572	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R573	Carbon Film	1	Mohm	1/5 W	J	3069105970	1	
R574	Carbon Film	120	kohm	1/5 W	J	3069124970	1	
R575	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R576	Carbon Film	4.7	kohm	1/5 W	J	3069472970	1	
R577	Carbon Film	6.8	kohm	1/5 W	J	3069682970	1	
R578	Carbon Film	3.9	kohm	1/5 W	J	3069392970	1	
R579	Metal Film	680	ohm	1/5 W	J	3029681970	1	
R580	Metal Film	33	ohm	1/5 W	J	3029330970	1	
R581	Carbon Film	4.7	kohm	1/5 W	J	3069472970	1	
R582	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R583	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R584	Carbon Film	33	kohm	1/5 W	J	3069333970	1	
R585	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R586	Carbon Film	330	kohm	1/5 W	J	3069334970	1	
R587	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R588	Carbon Film	330	kohm	1/5 W	J	3069334970	1	
R589	Carbon Film	1	Mohm	1/5 W	J	3069105970	1	
R590	Metal Film	82	ohm	1/5 W	J	3029820970	1	
R591/R592	Carbon Film	1	Mohm	1/5 W	J	3069105970	2	
R593	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R594	Carbon Film	12	kohm	1/5 W	J	3069123970	1	
R595	Carbon Film	6.2	kohm	1/5 W	J	3069622970	1	
R596	Carbon Film	100	kohm	1/5 W	J	3069104970	1	
R597	Carbon Film	18	kohm	1/5 W	J	3069183970	1	
R598	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R599	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R600	Metal Film	470	ohm	1/5 W	J	3029471970	1	
R601	Carbon Film	6.2	kohm	1/5 W	J	3069622970	1	
R602/R603	Carbon Film	1	Mohm	1/5 W	J	3069105970	2	
R604	Carbon Film	100	kohm	1/5 W	J	3069104970	1	
R605	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R606	Metal Film	10	ohm	1/5 W	J	3029100970	1	
R607	Carbon Film	4.7	kohm	1/5 W	J	3069472970	1	
R608	Carbon Film	3.3	kohm	1/5 W	J	3069332970	1	
R609	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
R610	Carbon Film	4.7	kohm	1/5 W	J	3069472970	1	
R611	Metal Film	10	ohm	1/5 W	J	3029100970	1	
R612	Metal Film	1	kohm	1/5 W	J	3029102970	1	
R613	Carbon Film	4.7	kohm	1/5 W	J	3069472970	1	
R614/R615	Carbon Film	10	kohm	1/5 W	J	3069103970	2	
R616	Carbon Film	3.3	kohm	1/5 W	J	3069332970	1	
R617	Carbon Film	5.1	kohm	1/5 W	J	3069512970	1	
R618	Metal Film	100	ohm	1/5 W	J	3029101970	1	
R619	Carbon Film	10	kohm	1/5 W	J	3069103970	1	
	SEMI FIXED VARIABLE RESISTORS							
VR501-504	20 K(B)					3248020353	4	
VR505	500(B)					3248050125	1	
VR506/507	10 K(B)					3248010353	2	
VR508	500(B)					3248050125	1	

IC FUNTIONAL BLOCK DIAGRAM

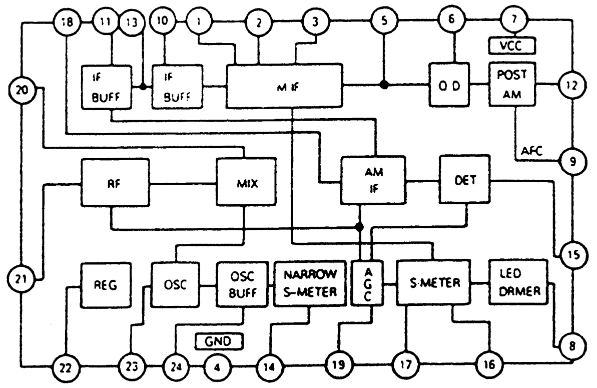
IC402 : CXD2508Q



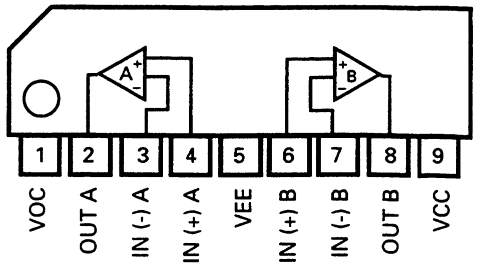
IC401 : CXA1782BQ


PHD2 36
PHD1 35
PHD 34
LD 33
RF_M 32
RF_O 31
RF_I 30
CP 29
CB 28
CC1 27
CC2 26
FOK 25
24 SENS
23 C. OUT
22 XRST
21 DATA
20 XLT
19 CLK
18 Vcc
17 ISET
16 SL_O
15 SL_M
14 SL_P
13 TA_O
FE_BIAS 37
F 38
E 39
EI 40
VEE 41
TEO 42
LPFI 43
TEI 44
ATSC 45
TZC 46
TDFCT 47
VC 48
1 FEO
2 FEI
3 FDFCT
4 FGD
5 FLB
6 FE_O
7 FE_M
8 SRCH
9 TGU
10 TG2
11 FSET
12 TA_M
APC
RF I-V AMP1
RF I-V AMP2
FE AMP
F I-V AMP
E I-V AMP
TE AMP
LEVEL S
FOK
MIRR
DFCT
I²L
TTL
•I²L DATA REGISTER •INPUT SHIFT REGISTER
•ADRESS. DECODER
•OUTPUT DECODER
TOG1-3 FS1-4 TG1-2 TM1-7 PS1-4
BAL1-3
FZC COMP
HPF COMP
LPF COMP
•TRACKING
•PHASE COMPENSATION
•I SET
TM1
TM2
TM3
TM4
TM5
TM6
TM7
TG1
TZC COMP
•FCS PHASE COMPENSATION
FS1
FS2
FS4
•WINDOW COMP.
ATSC
DFCT
TG2
•F SET

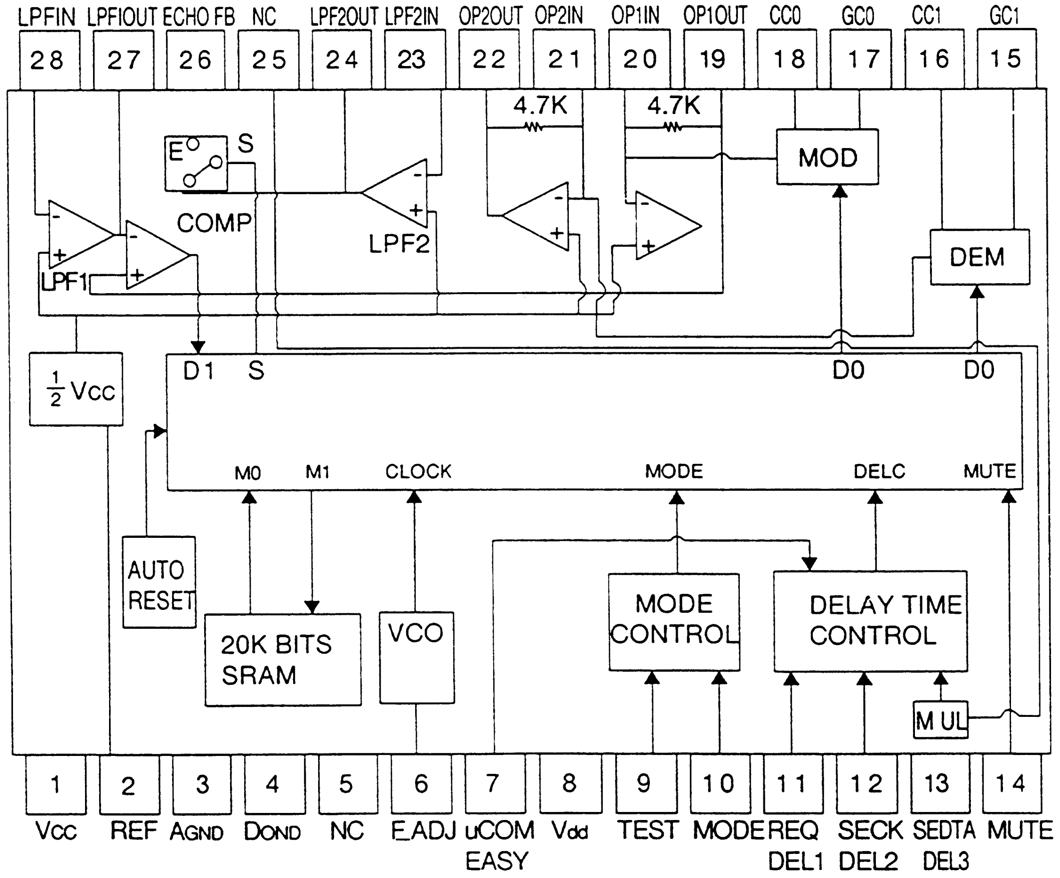
IC2 : LA1266 (RDS VERSION)


18
11
13
10
1
2
3
5
6
7
VCC
20
12
9
15
21
8
22
23
24
4
14
19
17
16
IF BUFF
IF BUFF
M IF
OD
POST AM
AFC
RF
MIX
AM IF
DET
REG
OSC
OSC BUFF
NARROW S-METER
AGC
S-METER
LED DRIVER
GND

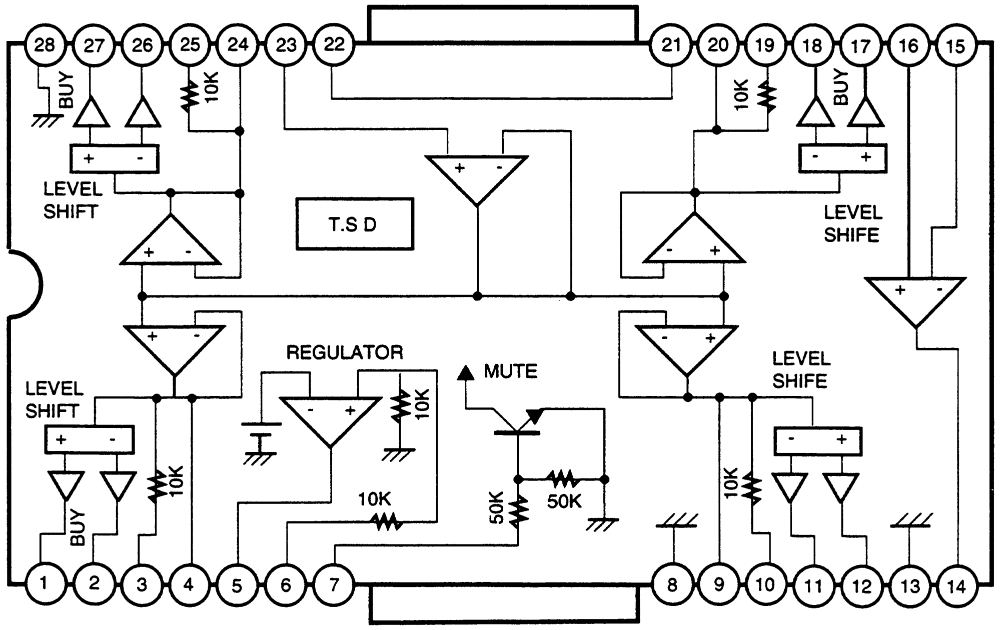
IC101/IC404 : KIA4559S/75559S


A
B
1 VOC
2 OUT A
3 IN (-) A
4 IN (+) A
5 VEE
6 IN (+) B
7 IN (-) B
8 OUT B
9 VCC

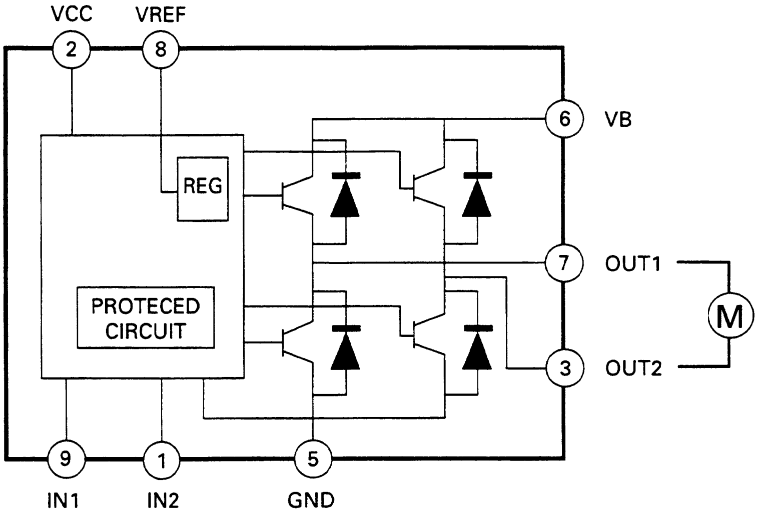
IC201 : ES56028


LPFIN 28
LPFIOUT 27
ECHO FB 26
NC 25
LPF2OUT 24
LPF2IN 23
OP2OUT 22
OP2IN 21
OP1IN 20
OP1OUT 19
CC0 18
GC0 17
CC1 16
GC1 15
4.7K
4.7K
E
S
COMP
LPF2
LPF1
MOD
DEM
1/2 Vcc
D1
S
D0
D0
M0
M1
CLOCK
MODE
DELC
MUTE
AUTO RESET
20K BITS SRAM
VCO
MODE CONTROL
DELAY TIME CONTROL
M UL
1 Vcc
2 REF
3 AGND
4 DOND
5 NC
6 E ADJ
7 uCOM EASY
8 Vdd
9 TEST
10 MODE
11 REQ DEL1
12 SECK DEL2
13 SEDTA DEL3
14 MUTE

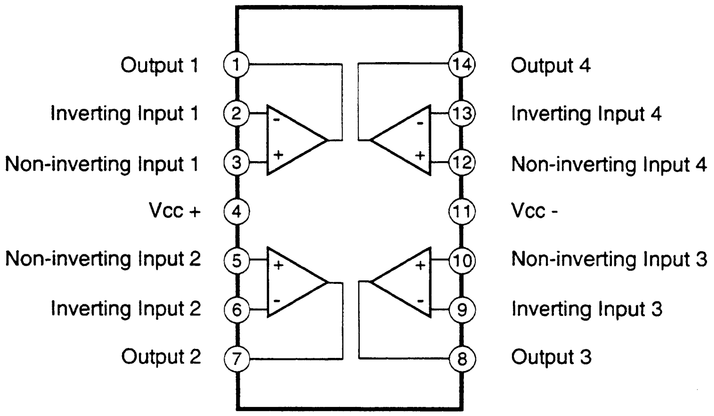
IC403 : KA9258


28
27
26
25
24
23
22
21
20
19
18
17
16
15
BUY
10K
10K
BUY
LEVEL SHIFT
T.S D
LEVEL SHIFE
REGULATOR
MUTE
10K
LEVEL SHIFT
LEVEL SHIFE
BUY
10K
10K
50K
50K
10K
1
2
3
4
5
6
7
8
9
10
11
12
13
14

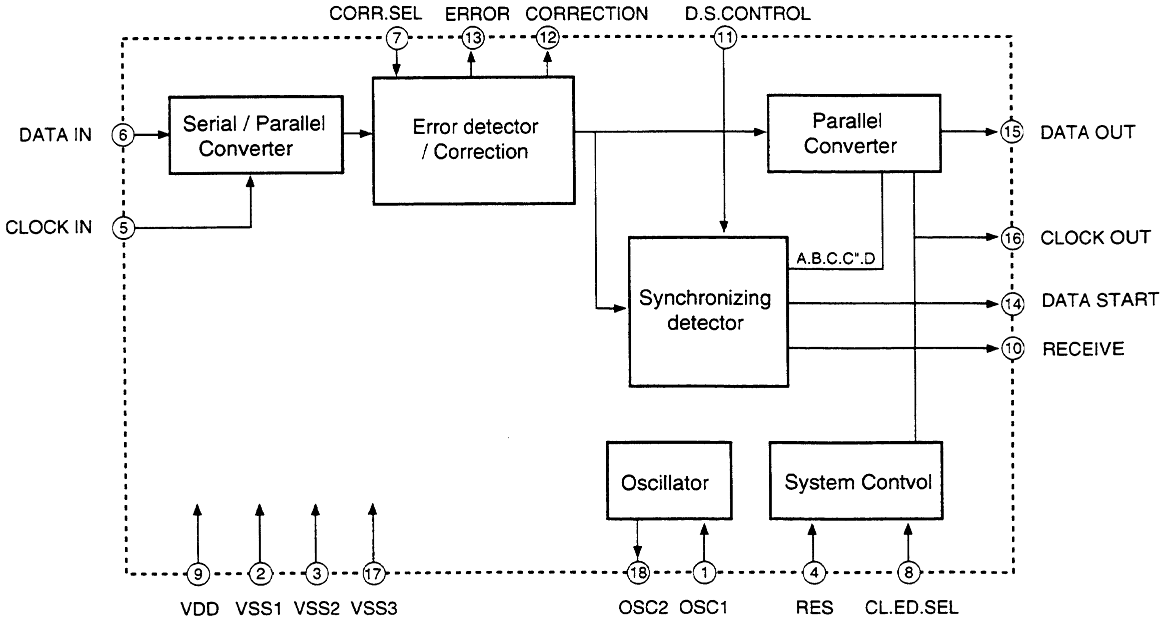
IC405 : TA7291S


VCC
VREF
2
8
6
VB
REG
7
OUT1
PROTECED CIRCUIT
M
3
OUT2
9
1
5
IN1
IN2
GND

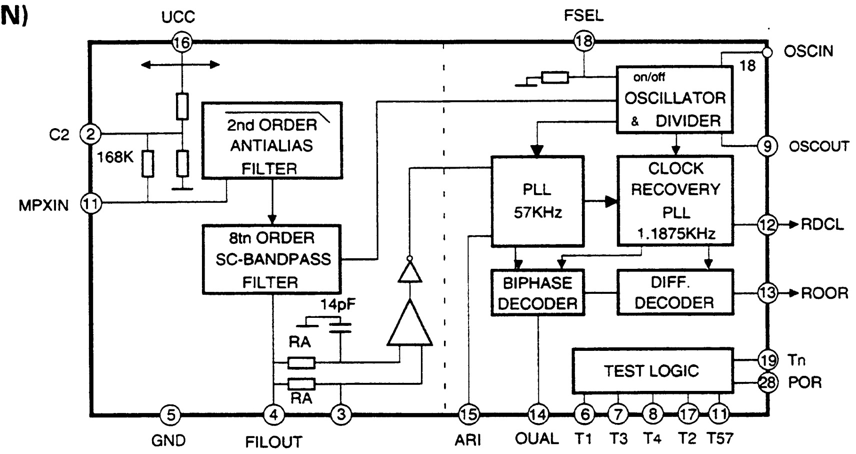
IC102 : LM324


Output 1
Inverting Input 1
Non-inverting Input 1
Vcc +
Non-inverting Input 2
Inverting Input 2
Output 2
1
2
3
4
5
6
7
14
13
12
11
10
9
8
Output 4
Inverting Input 4
Non-inverting Input 4
Vcc -
Non-inverting Input 3
Inverting Input 3
Output 3

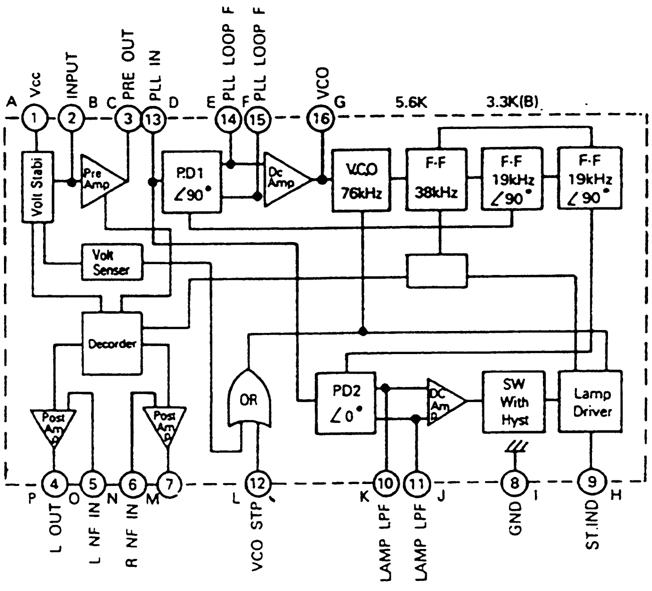
IC5 : LC7073 (RDS VERSION)


CORR.SEL
ERROR
CORRECTION
D.S.CONTROL
7
13
12
11
DATA IN
6
Serial / Parallel Converter
Error detector / Correction
Parallel Converter
15
DATA OUT
CLOCK IN
5
16
CLOCK OUT
A.B.C.C".D
Synchronizing detector
14
DATA START
10
RECEIVE
Oscillator
System Contvol
9
2
3
17
18
1
4
8
VDD
VSS1
VSS2
VSS3
OSC2
OSC1
RES
CL.ED.SEL

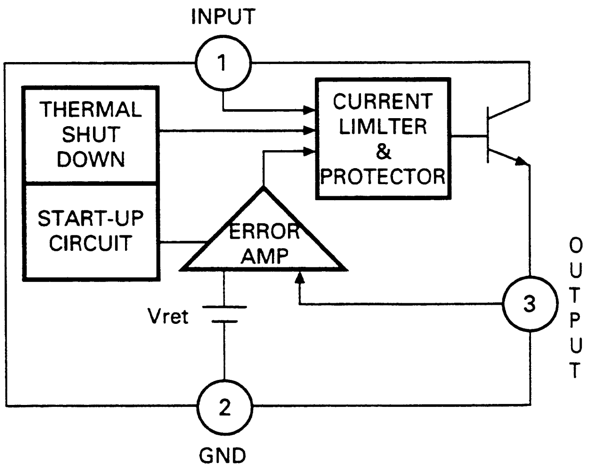
IC4 : TDA7330 (RDS VERSION)


UCC
16
FSEL
18
OSCIN
18
C2
2
168K
2nd ORDER ANTIALIAS FILTER
MPXIN
11
on/off
OSCILLATOR & DIVIDER
9
OSCOUT
PLL 57KHz
CLOCK RECOVERY PLL 1.1875KHz
12
RDCL
8tn ORDER SC-BANDPASS FILTER
BIPHASE DECODER
DIFF. DECODER
13
ROOR
14pF
RA
RA
TEST LOGIC
19
Tn
28
POR
5
4
3
15
14
6
7
8
17
11
GND
FILOUT
ARI
OUAL
T1
T3
T4
T2
T57

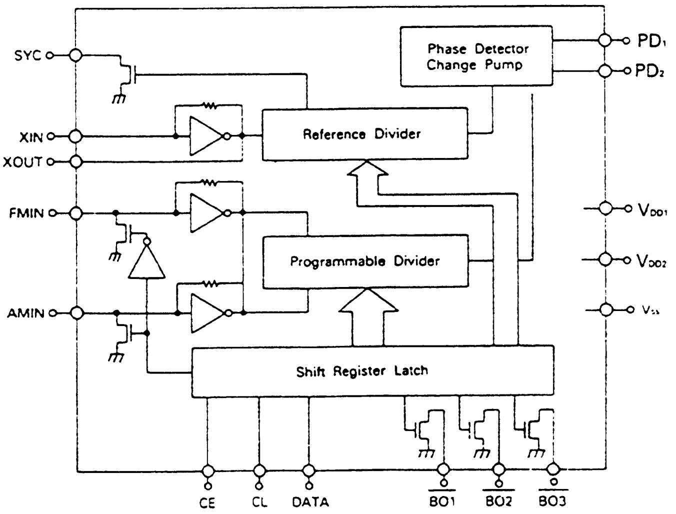
IC3 : HA12016 (RDS VERSION)


Vcc
INPUT
PRE OUT
PLL IN
PLL LOOP F
PLL LOOP F
VCO
A
B
C
D
E
F
G
1
2
3
13
14
15
16
5.6K
3.3K(B)
Volt Stabi
Pre Amp
PD1 ∠90°
Dc Amp
VCO 76kHz
F-F 38kHz
F-F 19kHz ∠90°
F-F 19kHz ∠90°
Volt Senser
Decorder
OR
PD2 ∠0°
DC Amp
SW With Hyst
Lamp Driver
Post Amp
Post Amp
4
5
6
7
12
10
11
8
9
P
O
N
M
L
K
J
I
H
L OUT
L NF IN
R NF IN
R
VCO STP
LAMP LPF
LAMP LPF
GND
ST.IND

IC407 : KA7808


INPUT
1
THERMAL SHUT DOWN
CURRENT LIMLTER & PROTECTOR
START-UP CIRCUIT
ERROR AMP
Vret
3
OUTPUT
2
GND

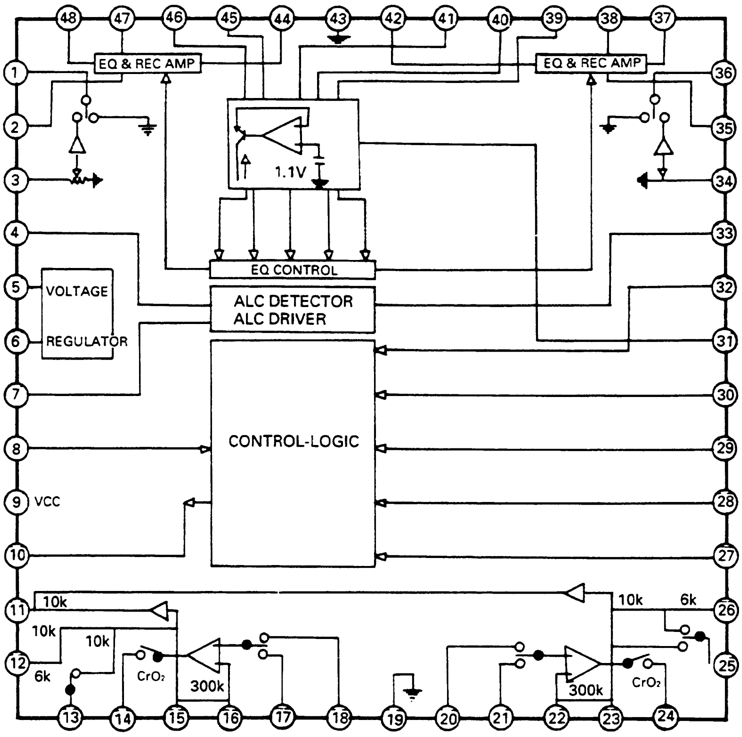
IC1, IC2 : LM7001M


SYC
XIN
XOUT
FMIN
AMIN
Phase Detector Change Pump
PD₁
PD₂
Reference Divider
Programmable Divider
Shift Register Latch
V_DD1
V_DD2
V_SS
CE
CL
DATA
BO1
BO2
BO3

Pin Name

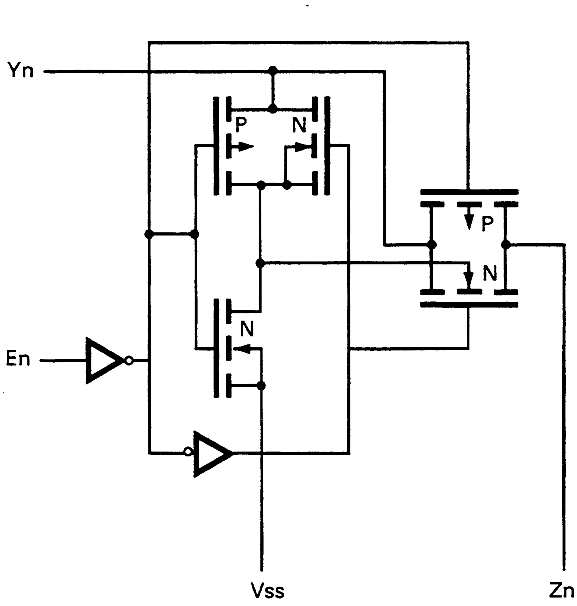
No	LM7001M
1	XOUT
2	XIN
3	NC
4	CE
5	CL
6	DATA
7	SYC
8	BO1
9	BO2
10	BO3
11	NC
12	AMIN
13	NC
14	FMIN
15	NC
16	VDD1
17	VDD2
18	PD1
19	PD2
20	VSS

IC502 : KA22292Q

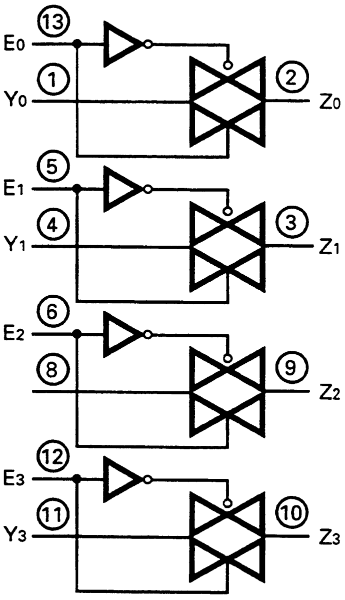

48
47
46
45
44
43
42
41
40
39
38
37
EQ & REC AMP
EQ & REC AMP
1
2
3
4
5
6
7
8
9
10
11
12
36
35
34
33
32
31
30
29
28
27
26
25
1.1V
EQ CONTROL
VOLTAGE
REGULATOR
ALC DETECTOR
ALC DRIVER
CONTROL-LOGIC
VCC
10k
10k
10k
6k
CrO₂
300k
10k
6k
300k
CrO₂
13
14
15
16
17
18
19
20
21
22
23
24

IC202 : GD4066B

LOGIC DIAGRAM (1/4 OF A 4066B)


Yn
P
N
P
N
N
En
Vss
Zn

LOGIC SYSBOL

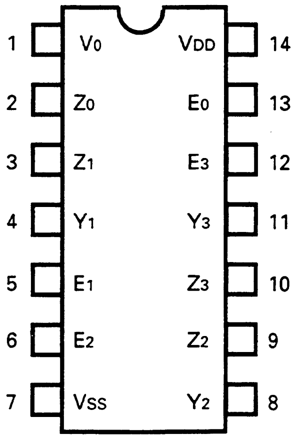

13
E0
1
Y0
2
Z0
5
E1
4
Y1
3
Z1
6
E2
8
9
Z2
12
E3
11
Y3
10
Z3

VDD = Pin14

Vss = Pin7

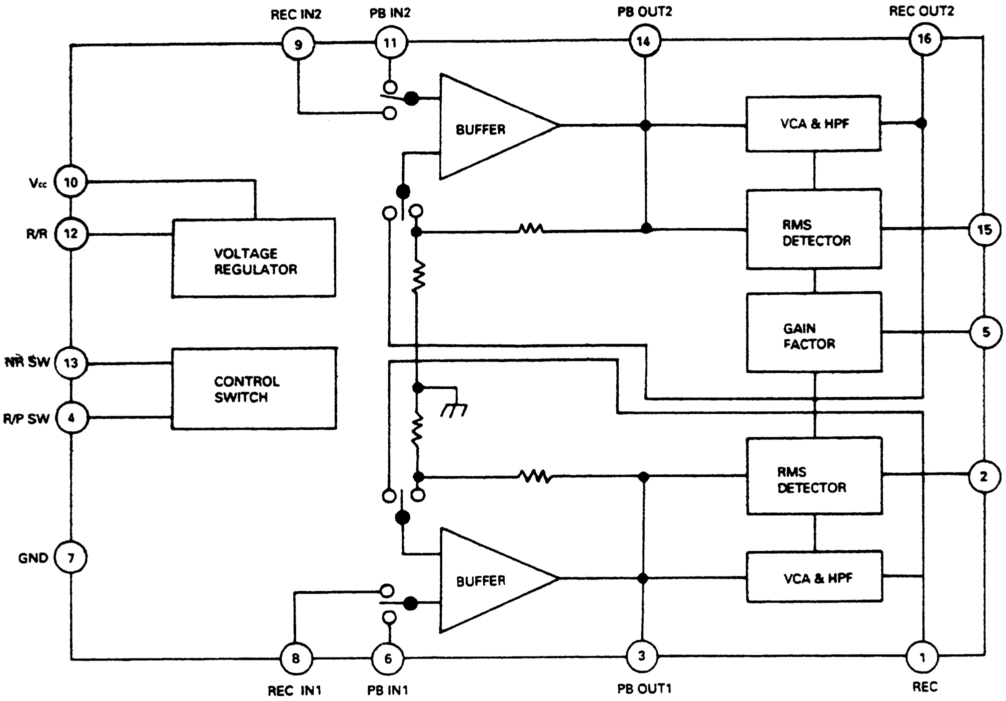
○ = Pin Numbers

CONNECTION DIAGRAM
DIP(TOP VIEW)

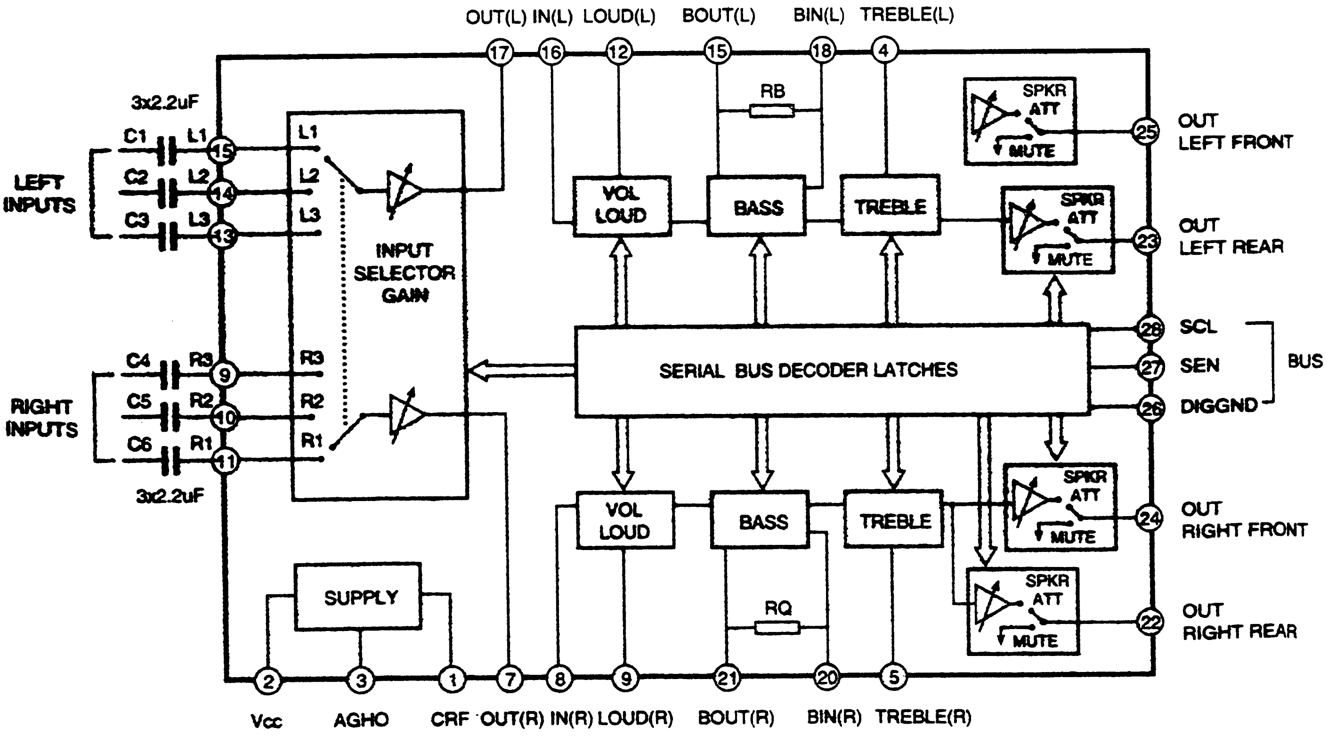

1 V0
2 Z0
3 Z1
4 Y1
5 E1
6 E2
7 Vss
VDD 14
E0 13
E3 12
Y3 11
Z3 10
Z2 9
Y2 8

NOTE:
The SO Package has the same plnoute (Connection Diagram) as the Dual-lIne Package.

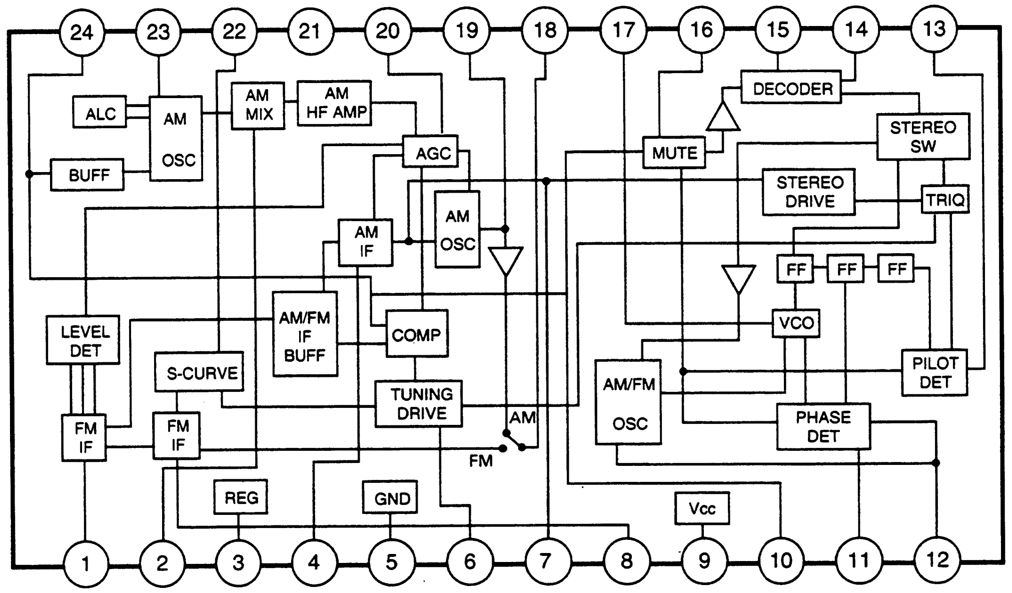
IC501 : KA22712


REC IN2
PB IN2
PB OUT2
REC OUT2
9
11
14
16
BUFFER
VCA & HPF
Vcc
10
R/R
12
VOLTAGE REGULATOR
RMS DETECTOR
15
GAIN FACTOR
5
NR SW
13
R/P SW
4
CONTROL SWITCH
RMS DETECTOR
2
GND
7
BUFFER
VCA & HPF
8
6
3
1
REC IN1
PB IN1
PB OUT1
REC

IC203 : TDA7313


OUT(L)
IN(L)
LOUD(L)
BOUT(L)
BIN(L)
TREBLE(L)
17
16
12
15
18
4
RB
3x2.2uF
C1
L1
15
C2
L2
14
C3
L3
13
LEFT INPUTS
L1
L2
L3
INPUT SELECTOR GAIN
VOL LOUD
BASS
TREBLE
SPKR ATT
MUTE
25
OUT LEFT FRONT
SPKR ATT
MUTE
23
OUT LEFT REAR
28
SCL
27
SEN
26
DIGGND
BUS
SERIAL BUS DECODER LATCHES
C4
R3
9
C5
R2
10
C6
R1
11
RIGHT INPUTS
R3
R2
R1
3x2.2uF
SPKR ATT
MUTE
24
OUT RIGHT FRONT
VOL LOUD
BASS
TREBLE
SUPPLY
RQ
SPKR ATT
MUTE
22
OUT RIGHT REAR
2
3
1
7
8
9
21
20
5
Vcc
AGHO
CRF
OUT(R)
IN(R)
LOUD(R)
BOUT(R)
BIN(R)
TREBLE(R)

IC1 : LA1832 (NON RDS VERSION)


24
23
22
21
20
19
18
17
16
15
14
13
ALC
AM
OSC
BUFF
AM
MIX
AM
HF AMP
AGC
AM
IF
AM
OSC
MUTE
DECODER
STEREO
SW
STEREO
DRIVE
TRIQ
FF
FF
FF
VCO
LEVEL
DET
S-CURVE
AM/FM
IF
BUFF
COMP
TUNING
DRIVE
AM
FM
AM/FM
OSC
PILOT
DET
PHASE
DET
FM
IF
FM
IF
REG
GND
Vcc
1
2
3
4
5
6
7
8
9
10
11
12

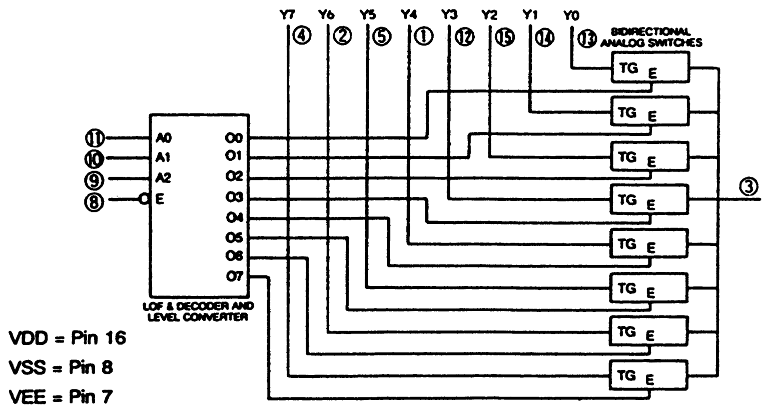
IC503 : GD4051

TRUTH TABLE

INPUTS				CHANNELS							
E	A_2	A_1	A_0	Y_0-Z	Y_1-Z	Y_2-Z	Y_3-Z	Y_4-Z	Y_5-Z	Y_6-Z	Y_7-Z
L	L	L	L	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
L	L	L	H	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
L	L	H	L	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
L	L	H	H	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
L	H	L	L	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
L	H	L	H	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
L	H	H	L	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
L	H	H	H	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
H	X	X	X	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

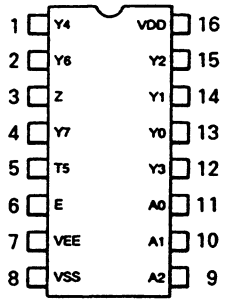
L = LOW Level
H = HIGH Level
X = Don't Care

4051B FUNCTIONAL LOGIC DIAGRAM

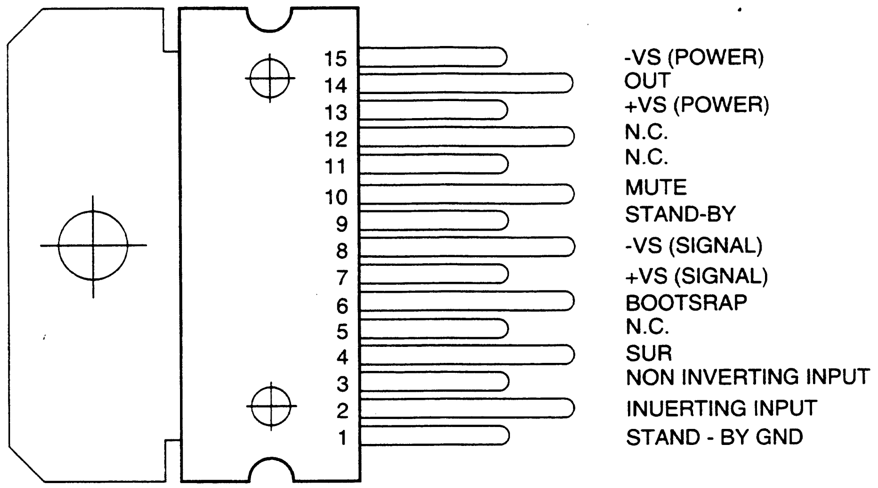

Y7
Y6
Y5
Y4
Y3
Y2
Y1
Y0
④
②
⑤
①
⑫
⑮
⑭
⑬
BIDIRECTIONAL ANALOG SWITCHES
TG E
⑪
⑩
⑨
⑧
A0
A1
A2
E
O0
O1
O2
O3
O4
O5
O6
O7
1 OF 8 DECODER AND LEVEL CONVERTER
③

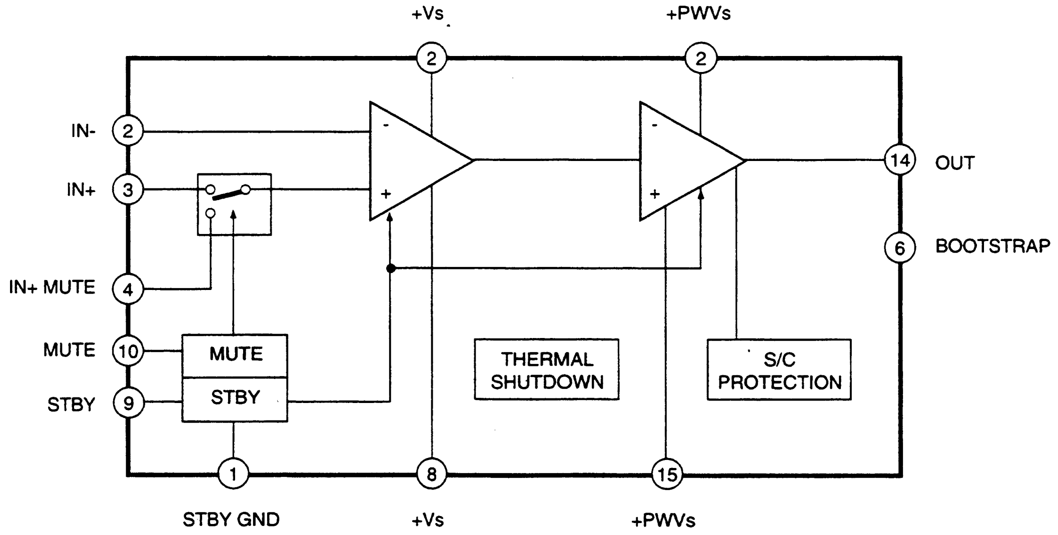
VDD = Pin 16
VSS = Pin 8
VEE = Pin 7
○ = Pin Numbers

Top View


1
Y4
2
Y6
3
Z
4
Y7
5
Y5
6
E
7
VEE
8
VSS
16
VDD
15
Y2
14
Y1
13
Y0
12
Y3
11
A0
10
A1
9
A2

IC204/IC205 : TDA7295

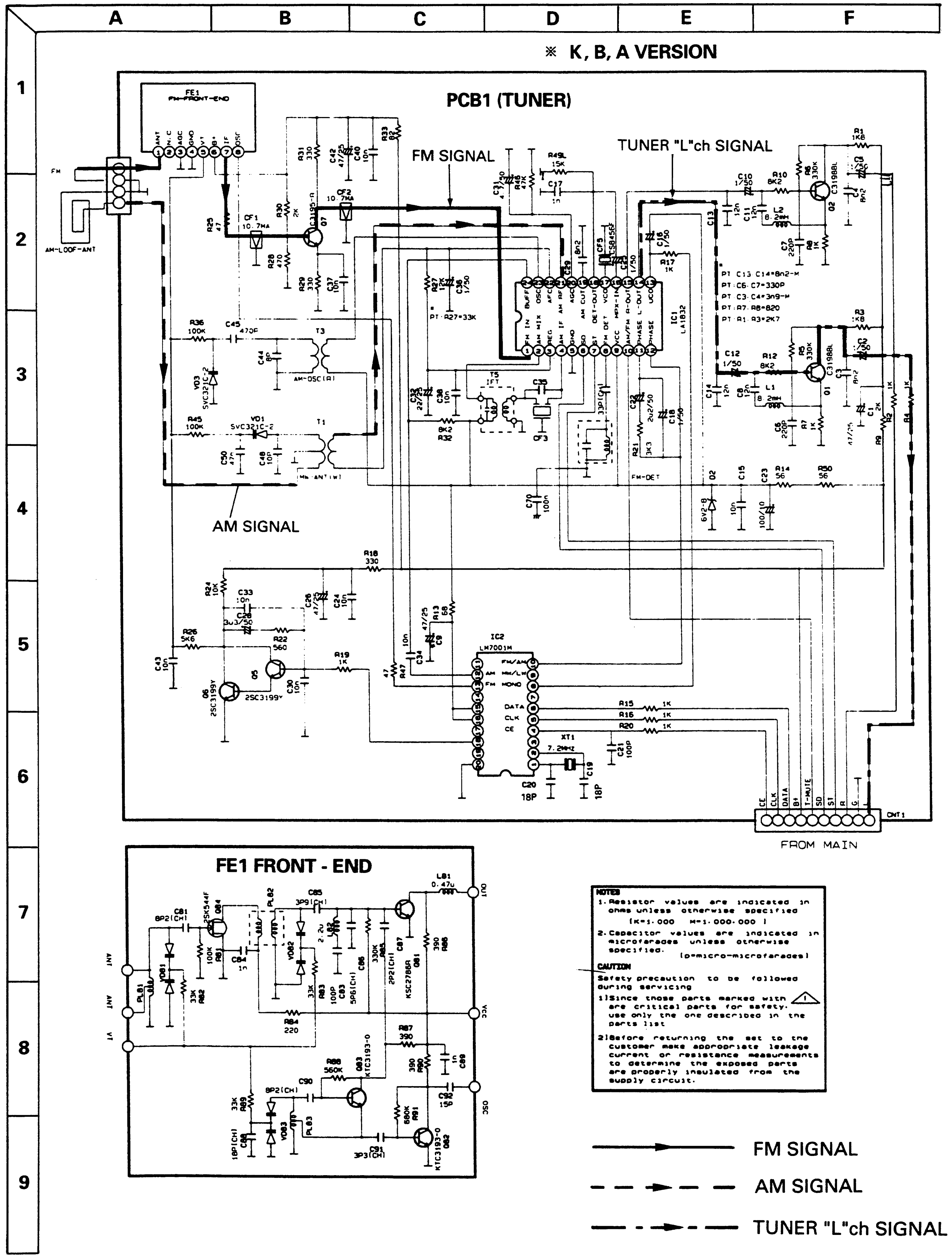

15
-VS (POWER)
14
OUT
13
+VS (POWER)
12
N.C.
11
N.C.
10
MUTE
9
STAND-BY
8
-VS (SIGNAL)
7
+VS (SIGNAL)
6
BOOTSRAP
5
N.C.
4
SUR
3
NON INVERTING INPUT
2
INUERTING INPUT
1
STAND - BY GND


+Vs
+PWVs
2
2
IN-
2
IN+
3
IN+ MUTE
4
MUTE
10
STBY
9
MUTE
STBY
THERMAL
SHUTDOWN
S/C
PROTECTION
14
OUT
6
BOOTSTRAP
1
STBY GND
8
+Vs
15
+PWVs

NOTE

SCHEMATIC DIAGRAM I

Model No. : P-363R


A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
※ K, B, A VERSION
PCB1 (TUNER)
FE1 FM-FRONT-END
FM SIGNAL
TUNER "L"ch SIGNAL
AM SIGNAL
FM
AM-LOOP-ANT
IC1 LA1832
IC2 LM7001H
T1
T3
T5 IFT
XT1 7.2MHz
C20 18P
C19 18P
CE
CLK
DATA
B+
T-MUTE
SD
ST
R
L
CNT1
FROM MAIN
FE1 FRONT - END
ANT
VT
OUT
OSC
KTC3193-O
KSC2786R
SK544F
FM SIGNAL
AM SIGNAL
TUNER "L"ch SIGNAL

NOTES

1. Resistor values are indicated in ohms unless otherwise specified
   (K=1.000 M=1.000.000)
2. Capacitor values are indicated in microfarades unless otherwise specified.
   (p=micro-microfarades)

CAUTION

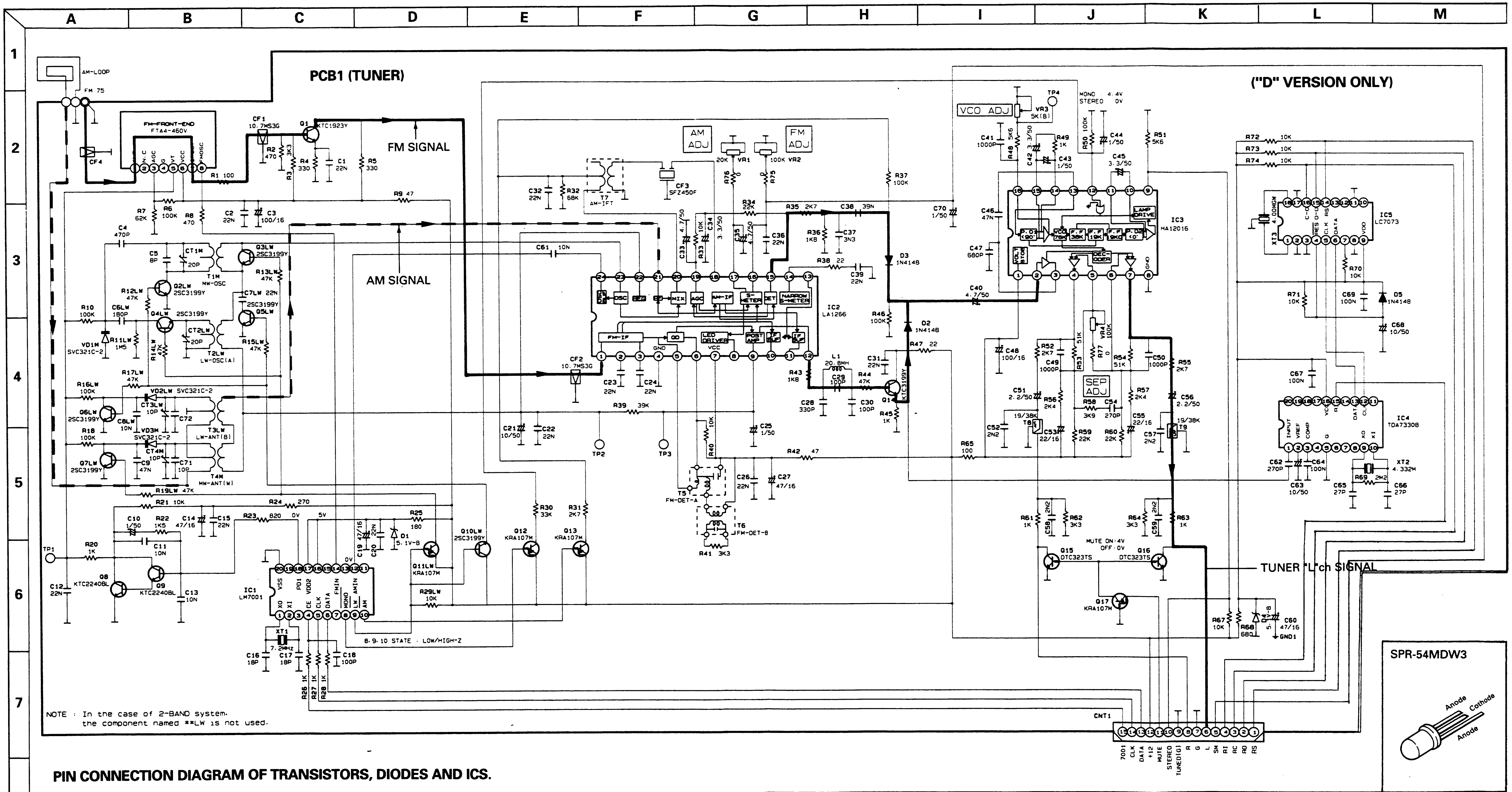
Safety precaution to be followed during servicing

1) Since those parts marked with ⚠ are critical parts for safety. use only the one described in the parts list

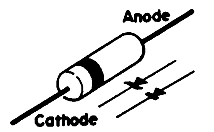
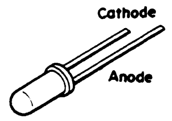
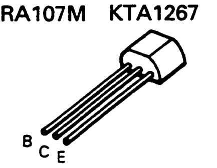
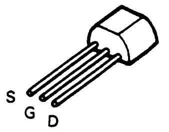
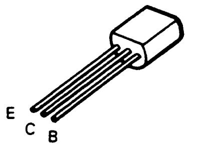
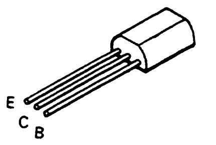
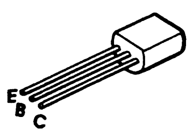
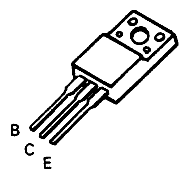
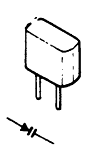
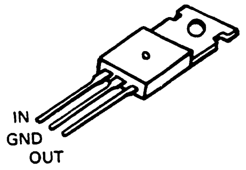
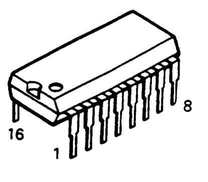
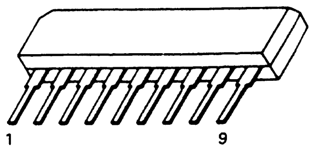
2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

SCHEMATIC DIAGRAM II

Model No. : P-363RDS

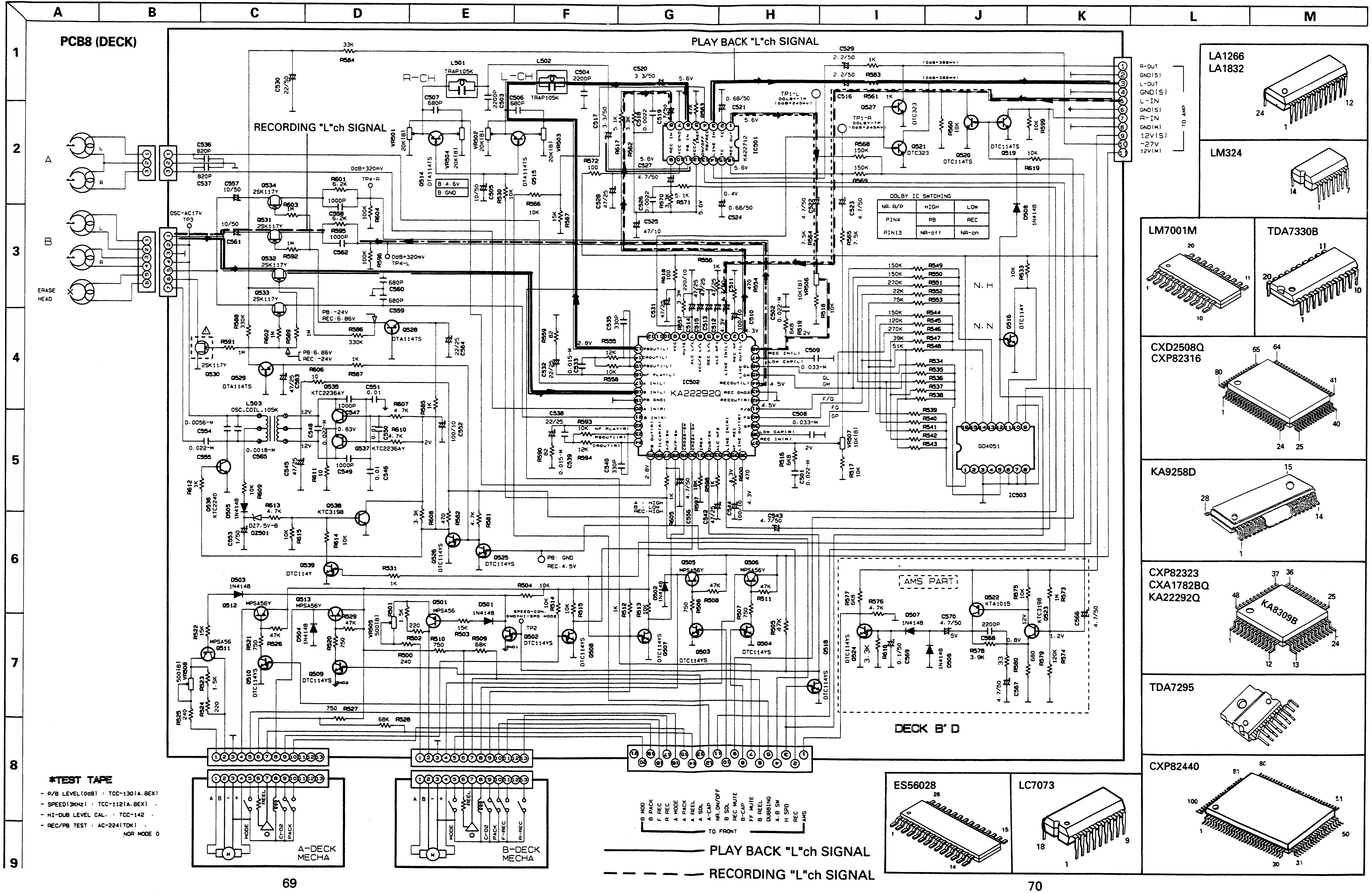

A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
6
7
PCB1 (TUNER)
("D" VERSION ONLY)
AM-LOOP
FM 75
FM-FRONT-END
FTA4-460V
CF4
CF1
10.7MS3G
Q1
KTC1923Y
FM SIGNAL
AM SIGNAL
AM ADJ
FM ADJ
VR1
VR2
CF3
SFZ450F
T7
AM-IFT
IC2
LA1266
OSC
MIX
AGC
AM-IF
S-METER
DET
NARROW S-METER
FM-IF
LED DRIVER
POST AMP
CF2
10.7MS3G
TP2
TP3
T5
FM-DET-A
T6
FM-DET-B
L1
20.8MH
Q14
KTC3199Y
D2
1N4148
D3
1N4148
VCO ADJ
VR3
5K(B)
TP4
MONO 4.4V
STEREO 0V
IC3
HA12016
LAMP DRIVE
SEP ADJ
VR4
T8
T9
IC5
LC7073
XT3
4.00MHZ
D5
1N4148
IC4
TDA7330B
XT2
4.332M
T1M
MW-OSC
T2LW
LW-OSC(A)
T3LW
LW-ANT(B)
T4M
MW-ANT(W)
Q2LW
Q3LW
Q4LW
Q5LW
2SC3199Y
Q6LW
Q7LW
2SC3199Y
VD1M
SVC321C-2
VD2LW
SVC321C-2
VD3M
SVC321C-2
TP1
Q8
KTC2240BL
Q9
KTC2240BL
IC1
LM7001
XT1
7.2MHZ
D1
5.1V-B
Q10LW
2SC3199Y
Q11LW
KRA107M
Q12
KRA107M
Q13
KRA107M
8.9.10 STATE : LOW/HIGH-Z
Q15
DTC323TS
Q16
DTC323TS
MUTE ON:4V
OFF:0V
Q17
KRA107M
TUNER "L"ch SIGNAL
GND1
CNT1
7001
CLK
DATA
+12
MUTE
STEREO
TUNED(G)
R
G
L
SH
RI
RC
RD
RS
NOTE : In the case of 2-BAND system, the component named **LW is not used.
SPR-54MDW3
Anode
Cathode
Anode

PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICS.

ZENER IN5402 IN4148	SLR-34GCN49	2SC3199Y/KTC3199 Y DTA114YS DTC323TS DTC114YS DTC323TL DTA114TS KTC3195 KRA107M KTA1267	2SK117Y	KTC2240/KTC3200 KTC3198/KTC1815 KTC1923/KTC3194 KTA1266/KTA1015Y	KTC2236/KTC3205Y	MPSA56Y	KTD2058	SVC321C-2	KA7808	KA22712 HA12016	TA7291S KIS4559S
 Anode Cathode	 Cathode Anode										

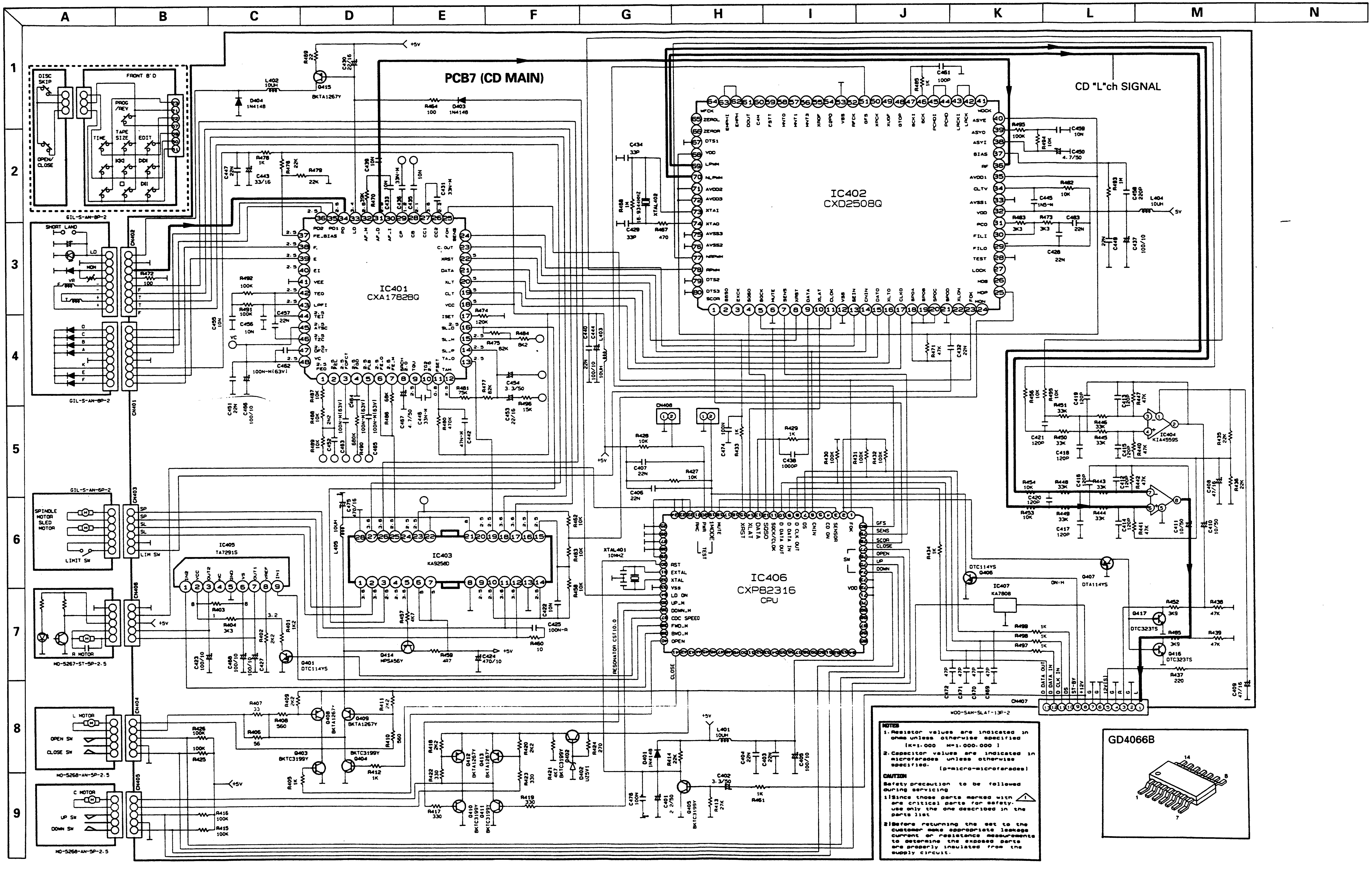
SCHEMATIC DIAGRAM III

Model No. : P-363R/P-363RDS


A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
6
7
8
9
PCB8 (DECK)
PLAY BACK "L"ch SIGNAL
RECORDING "L"ch SIGNAL
R-CH
L-CH
L501 TRAP105K
L502 TRAP105K
IC501 KA22712
IC502 KA22292Q
IC503 GD4051
TP1-L DOLBY-TP (0dB=245mV)
TP1-R DOLBY-TP
TP4-R
TP4-L
0dB=320mV
OSC-AC17V TP3
L503 OSC.COIL.105K
ERASE HEAD
DOLBY IC SWITCHING
NR. R/P | HIGH | LOW
PIN4 | PB | REC
PIN13 | NR-off | NR-on
N. H
N. N
AMS PART
DECK B' D
R-OUT
GND(S)
L-OUT
GND(S)
L-IN
GND(S)
R-IN
GND(M)
12V(S)
-27V
12V(M)
TO AMP
B HOD
B PACK
F REC
R REC
A MODE
A PACK
A REEL
A SOL
NR.ON/OFF
B SOL
REC MUTE
B-CAP
FF MUTE
B REEL
DUBBING
A.B SW
H.SPD
REC
AMS
TO FRONT
A-DECK MECHA
B-DECK MECHA
MODE
REEL
CrO2
PACK
R-REC
*TEST TAPE
- P/B LEVEL(0dB) : TCC-130(A.BEX)
- SPEED(3KHz) : TCC-112(A.BEX)
- HI-DUB LEVEL CAL. : TCC-142
- REC/PB TEST : AC-224(TDK)
NOR MODE 0
PLAY BACK "L"ch SIGNAL
RECORDING "L"ch SIGNAL
LA1266
LA1832
LM324
LM7001M
TDA7330B
CXD2508Q
CXP82316
KA9258D
CXP82323
CXA1782BQ
KA22292Q
KA8309B
TDA7295
CXP82440
ES56028
LC7073

SCHEMATIC DIAGRAM IV

Model No. : P-363R/P-363RDS


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
6
7
8
9
PCB7 (CD MAIN)
CD "L"ch SIGNAL
FRONT B'D
DISC SKIP
OPEN/CLOSE
PROG/REV
TAPE SIZE
TIME
EDIT
GIL-S-AN-8P-2
SHORT LAND
LD
MON
VR
GIL-S-AN-8P-2
CN401
CN402
CN403
CN404
CN405
CN406
CN407
CN408
IC401
CXA1782BQ
IC402
CXD2508Q
IC403
KA9258D
IC404
KIA4559S
IC405
TA7291S
IC406
CXP82316
CPU
IC407
KA7808
XTAL401
10MHZ
XTAL402
16.9344MHZ
RESONATOR CST10.0
GIL-S-AN-6P-2
SPINDLE MOTOR
SLED MOTOR
LIMIT SW
R MOTOR
MO-5267-ST-5P-2.5
L MOTOR
OPEN SW
CLOSE SW
MO-5268-AN-5P-2.5
C MOTOR
UP SW
DOWN SW
MO-5268-AN-5P-2.5
WOO-SAM-SLAT-13P-2
+5V
Q401 DTC114YS
Q403 BKTC3199Y
Q404 BKTC3199Y
Q405 BKTC3199Y
Q406 DTC114YS
Q407 DTA114YS
Q408 BKTA1267Y
Q409 BKTA1267Y
Q414 HPSA56Y
Q415 BKTA1267Y
Q416 DTC323TS
Q417 DTC323TS
D401 1N4148
D402 UZ5V1
D403 1N4148
D404 1N4148
L401 10UH
L402 10UH
L403 10UH
L404 10UH
L405 10UH
D DATA OUT
D DATA IN
D CLK IN
DS
ST-BY
12V
12V(S)
GD4066B
1
7
8
14

NOTES

1. Resistor values are indicated in ohms unless otherwise specified
   (K=1.000 M=1.000.000)
2. Capacitor values are indicated in microfarades unless otherwise specified.
   (p=micro-microfarades)

CAUTION

Safety precaution to be followed during servicing

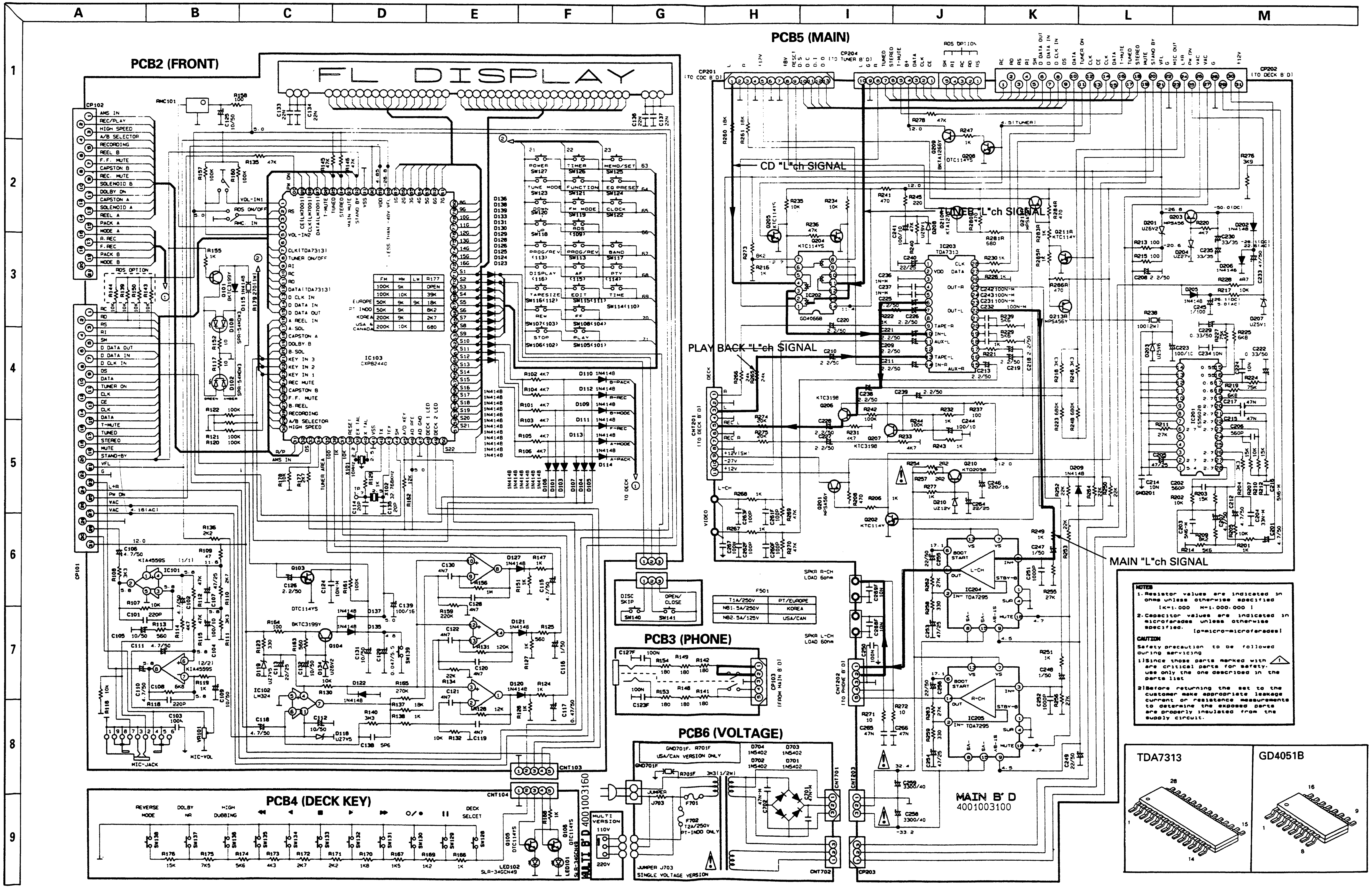
1) Since those parts marked with ⚠ are critical parts for safety. use only the one described in the parts list

2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

⟶ CD "L"ch SIGNAL

SCHEMATIC DIAGRAM V

Model No. : P-363R/P-363RDS


A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
6
7
8
9
PCB2 (FRONT)
FL DISPLAY
PCB5 (MAIN)
CD "L"ch SIGNAL
TUNER "L"ch SIGNAL
PLAY BACK "L"ch SIGNAL
MAIN "L"ch SIGNAL
IC103 CXP82440
IC203 TDA7313
IC202 GD4066B
IC204 TDA7295
IC205 TDA7295
PCB3 (PHONE)
PCB4 (DECK KEY)
PCB6 (VOLTAGE)
MAIN B'D
4001003100
MULTI B'D 4001003160
TDA7313
GD4051B

NOTES

1. Resistor values are indicated in ohms unless otherwise specified
   (K=1.000 M=1.000.000)
2. Capacitor values are indicated in microfarades unless otherwise specified. (p=micro-microfarades)

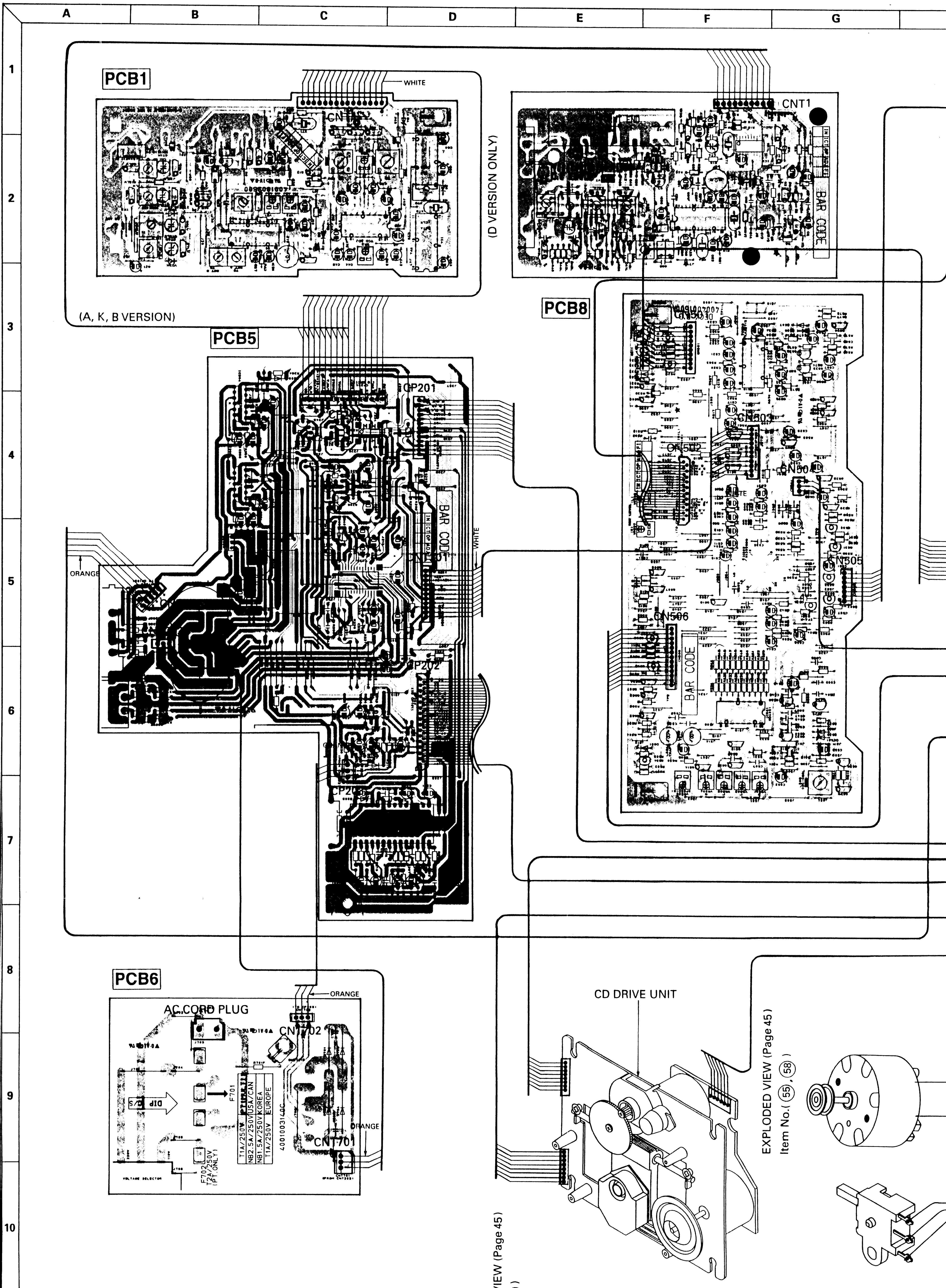
CAUTION

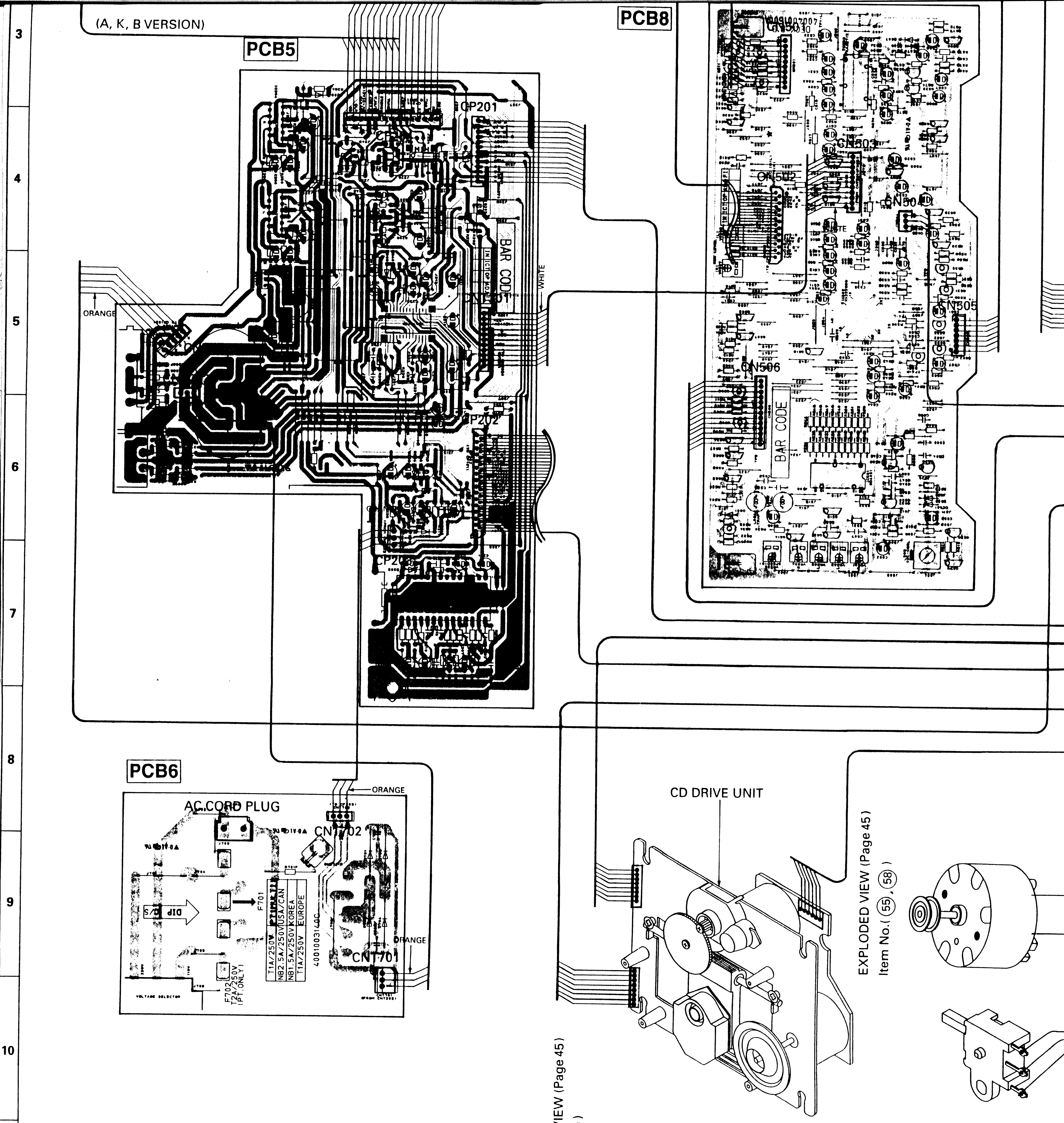
Safety precaution to be followed during servicing

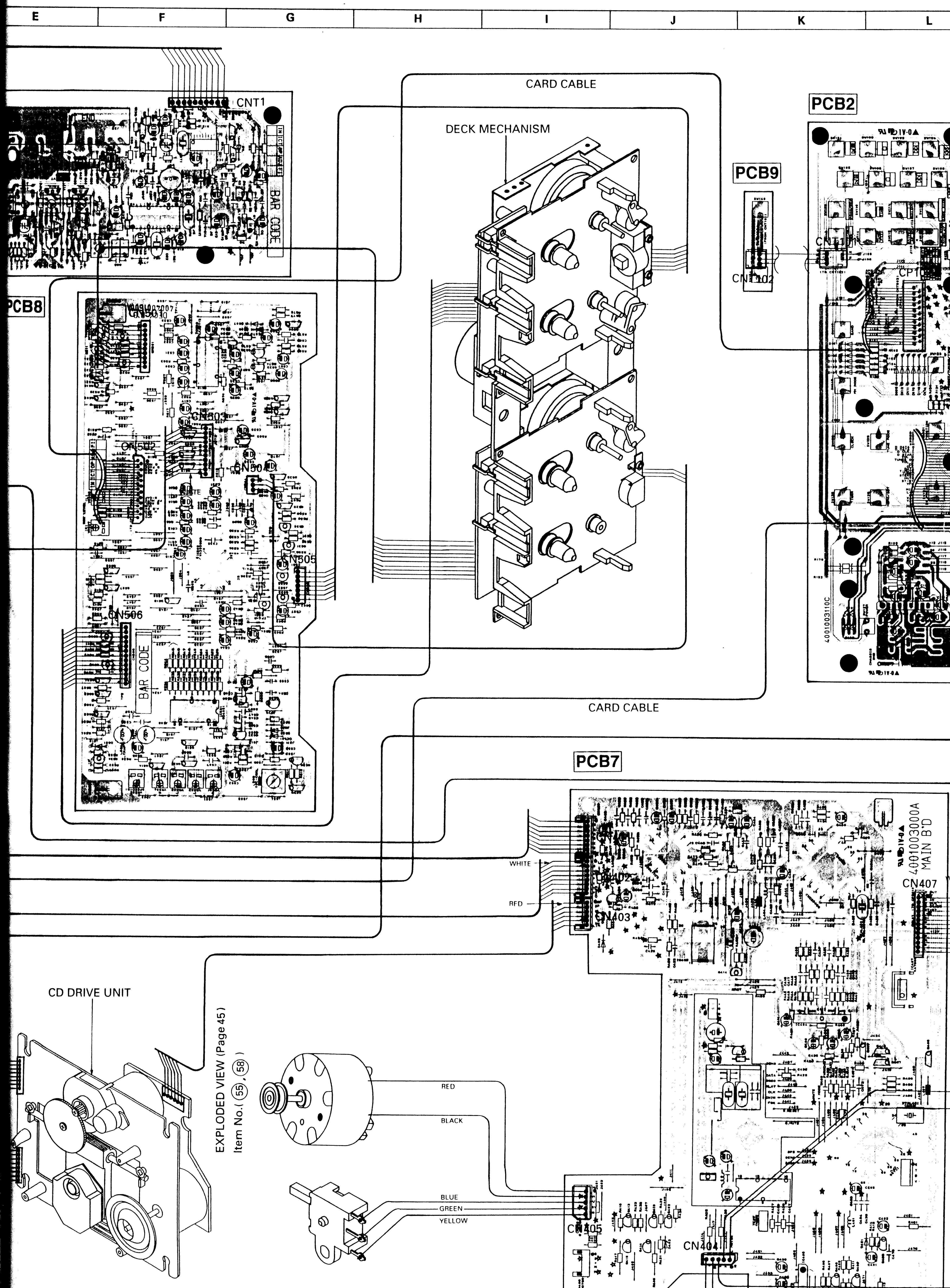
1) Since those parts marked with ⚠ are critical parts for safety. use only the one described in the parts list

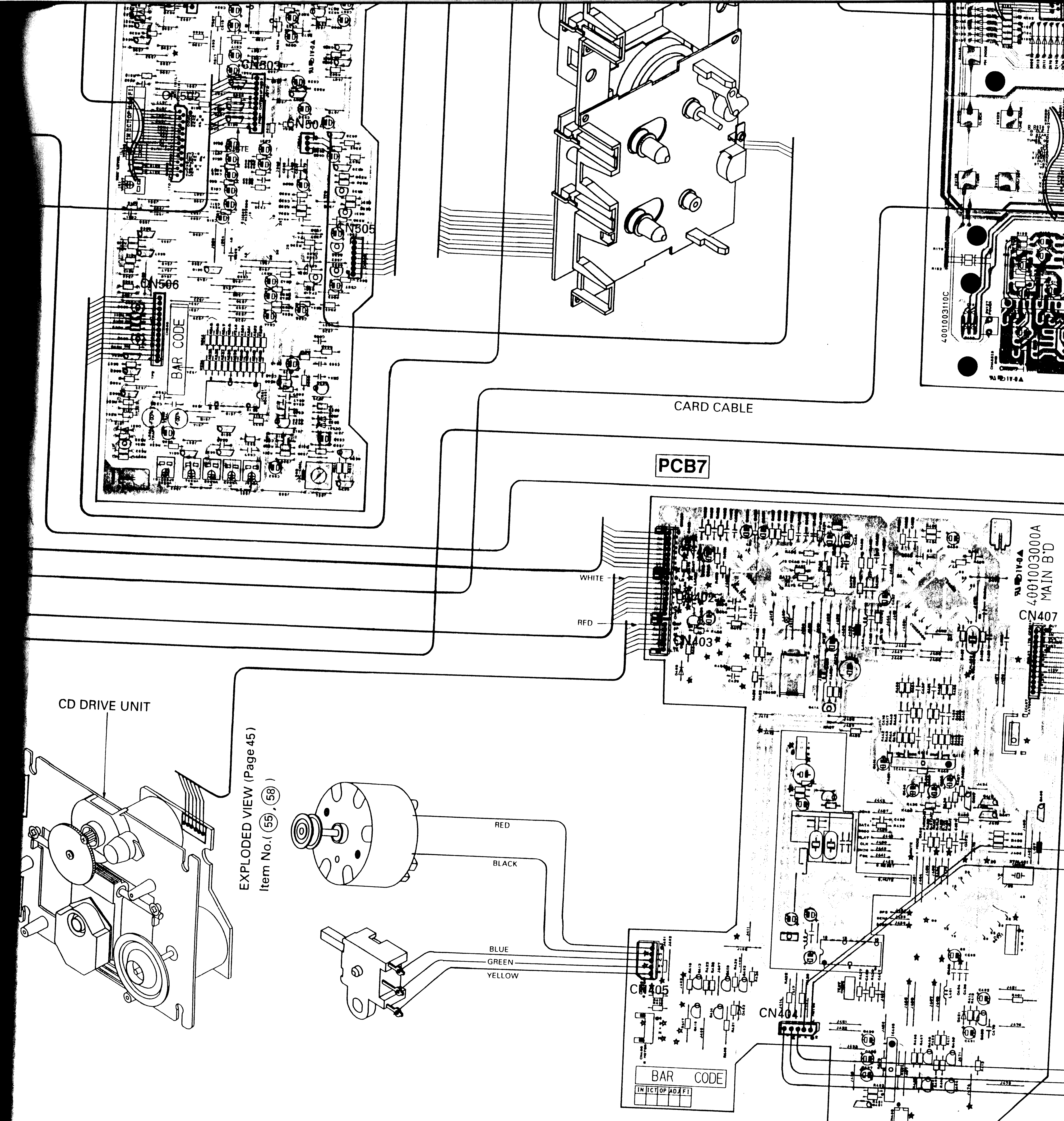
2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

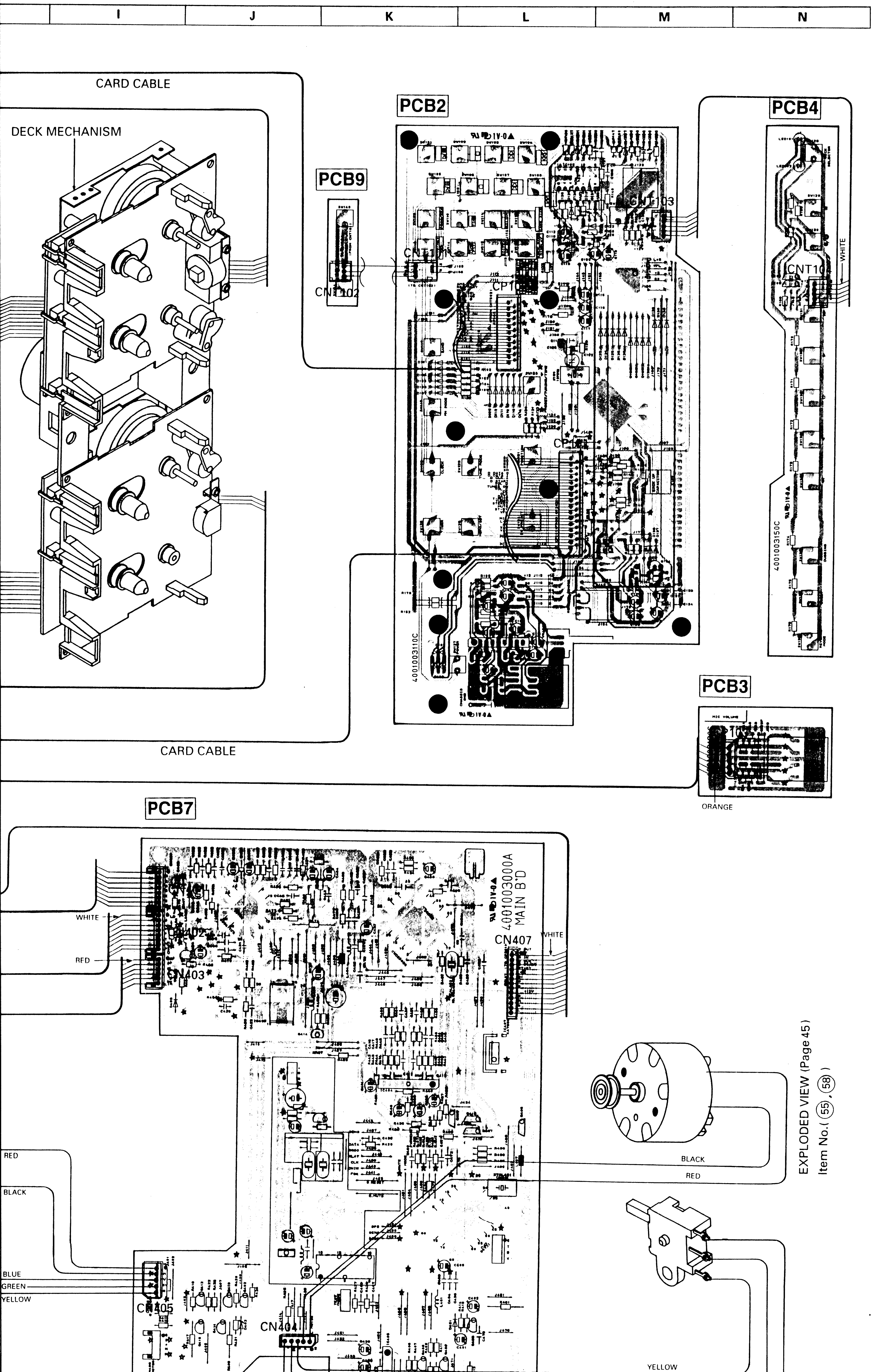
WIRING DIAGRAM


A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
10
PCB1
WHITE
CN1
(A, K, B VERSION)
(D VERSION ONLY)
CNT1
BAR CODE
PCB8
PCB5
CP201
BAR CODE
WHITE
ORANGE
CP202
CP203
CN503
CN502
CN504
CN505
CN506
BAR CODE
PCB6
ORANGE
AC CORD PLUG
CN702
F701
T1A/250V
USA/CAN
NB2.5A/250V
KOREA
NB1.5A/250V
EUROPE
T1A/250V
F702 T2A/250V (P1 ONLY)
VOLTAGE SELECTOR
ORANGE
CN701
CD DRIVE UNIT
EXPLODED VIEW (Page 45)
Item No.(55),(58)
IEW (Page 45)

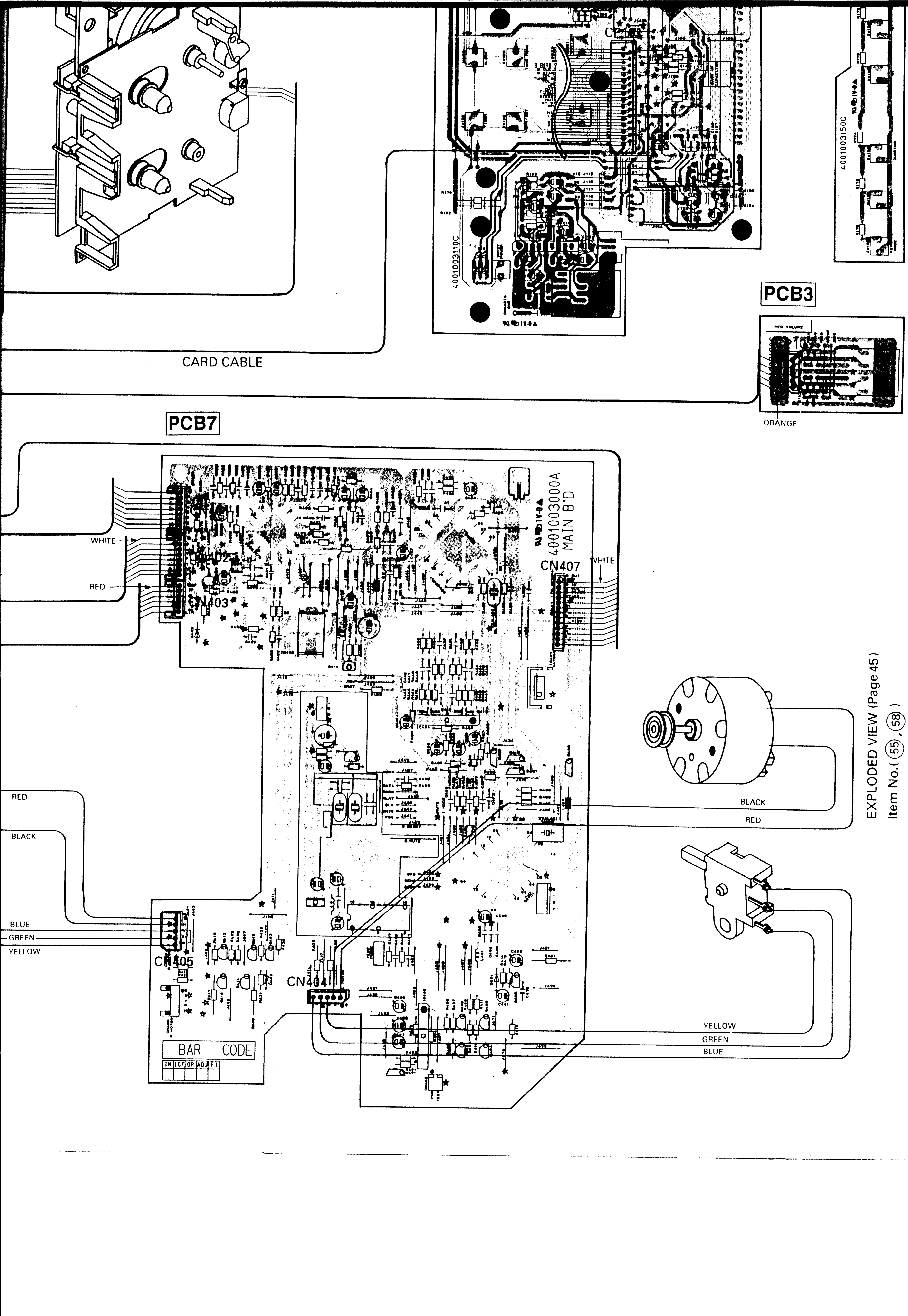

3
4
5
6
7
8
9
10
(A, K, B VERSION)
PCB5
CP201
BAR CODE
CN201
WHITE
ORANGE
CP202
CP203
PCB8
CN503
CN502
CN504
CN505
CN506
BAR CODE
PCB6
AC CORD PLUG
CN702
ORANGE
F701
T1A/250V
NB2.5A/250V USA/CAN
NB1.5A/250V KOREA
T1A/250V EUROPE
F702 T2A/250V (PT. ONLY)
VOLTAGE SELECTOR
CN701
CD DRIVE UNIT
EXPLODED VIEW (Page 45) Item No.(55)
EXPLODED VIEW (Page 45) Item No.(55),(58)


E
F
G
H
I
J
K
L
CARD CABLE
DECK MECHANISM
CNT1
BAR CODE
PCB2
PCB9
CN1102
PCB8
CN503
CN502
CN504
CN505
CN506
BAR CODE
4001003110C
CARD CABLE
PCB7
4001003000A
MAIN B'D
CN407
WHITE
RED
CN402
CN403
CD DRIVE UNIT
EXPLODED VIEW (Page 45)
Item No.(㊺, ㊿)
RED
BLACK
BLUE
GREEN
YELLOW
CN405
CN404


CN502
CN503
CN504
CN505
CN506
BAR CODE
4001003110C
CARD CABLE
PCB7
4001003000A
MAIN B'D
CN407
WHITE
RED
CN402
CN403
CD DRIVE UNIT
EXPLODED VIEW (Page 45)
Item No.(55, 58)
RED
BLACK
BLUE
GREEN
YELLOW
CN405
CN404
BAR CODE
IN
ICT
OP
ADJ
FI


I
J
K
L
M
N
CARD CABLE
DECK MECHANISM
PCB2
PCB9
PCB4
CNT103
CNT102
CP1
WHITE
4001003150C
4001003110C
PCB3
ORANGE
CARD CABLE
PCB7
4001003000A
MAIN B'D
CN407
WHITE
WHITE
RED
CN402
CN403
RED
BLACK
BLUE
GREEN
YELLOW
CN405
CN404
BLACK
RED
YELLOW

EXPLODED VIEW (Page 45)
Item No.(55),(58)


4001003110C
4001003150C
PCB3
MIC VOLUME
CARD CABLE
ORANGE
PCB7
4001003000A
MAIN B'D
WHITE
RED
CN402
CN403
CN407
WHITE
BLACK
RED
RED
BLACK
BLUE
GREEN
YELLOW
CN405
CN404
YELLOW
GREEN
BLUE
BAR CODE
IN
ICT
OP
ADJ
F1

EXPLODED VIEW (Page 45)
Item No.(55),(58))